STATUTORY INSTRUMENTS

2000 No. 3184

WATER, ENGLAND AND WALES

The Water Supply (Water Quality) Regulations 2000

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The Secretary of State for the Environment, Transport and the Regions, in exercise of the powers conferred upon him by sections 67, 69 and 213(2) of the Water Industry Act 1991(**a**) and, in relation to England, section 77(3) and (4) of that Act(**b**), and in exercise of all other powers enabling him in that behalf, hereby makes the following Regulations:

(**a**) 1991 c. 56. Section 213 is amended by the Competition and Service (Utilities) Act 1992 (c. 43). Functions under section 67 of the Water Industry Act 1991 for making regulations concerning water supplied by water undertakers, and functions under section 69 of that Act were transferred to the National Assembly for Wales in relation to any water undertaker whose area is wholly or mainly in Wales by the National Assembly for Wales (Transfer of Functions) Order 1999 (S.I. 1999/672), Schedule 1, as substituted by S.I. 2000/253, Schedule 3. Functions under section 213 of the Water Industry Act 1991 are exercisable by the National Assembly for Wales to the same extent as the powers, duties and other provisions to which that section applies are exercisable by the Assembly; *see* S.I. 1999/672, Schedule 1, as substituted by S.I. 2000/253, Schedule 3.

(**b**) Functions under section 77(3) and (4) of the Water Industry Act 1991 are transferred to the National Assembly for Wales, so far as exercisable in relation to Wales, by S.I. 1999/672, Schedule 1, as substituted by S.I. 2000/253, Schedule 3.

PART I

GENERAL

Citation, commencement and application

1.—(1) These Regulations may be cited as the Water Supply (Water Quality) Regulations 2000.

(2) This regulation, regulations 2, 27 to 29, 40 and 41, paragraph (1) of regulation 43, and so much of regulation 33 as relates to any contravention of a provision of regulation 29, shall come into force on 1st January 2001.

(3) Regulations 3 and 42 shall come into force on 1st June 2003.

(4) Regulations 4 and 17 to 24, paragraphs (4) and (5) of regulation 30, and paragraph (2) of regulation 43, shall come into force on 25th December 2003.

(5) All other provisions of these Regulations shall come into force on 1st January 2004.

(6) Parts I to VIII, X and XI of these Regulations apply to the supply of water by water undertakers whose areas are not wholly or mainly in Wales.

(7) Part IX of these Regulations applies to local authorities in England, as regards the discharge of functions under that Part in relation to water undertakers—

(a) whose area is situated wholly in England; or

(b) whose area is situated partly in England and partly in Wales, as regards the part situated in England.

Interpretation

2.—(1) In these Regulations—

"the Act" means the Water Industry Act 1991;

"the 1989 Regulations" means the Water Supply (Water Quality) Regulations 1989(**a**);

"appropriate local authority" and "appropriate health authority"—

(a) in relation to a departure authorised under regulation 20 or 21 or an application for any such authorisation, means the local authority and the health authority, respectively, whose area contains any part of the water supply zone to which the authorisation relates or, in the case of an application, would apply if a departure were authorised in the terms sought;

(b) in relation to such an event as is mentioned in regulation 35(8), means the local authority and the health authority, respectively, in whose area the event occurs;

"blending point" means a point at which water originating from two or more sources and treated for the purposes of their supply for regulation 4(1) purposes are combined under conditions that are designed to secure that, after such combination, the requirements of paragraph (2) of regulation 4 are met;

"Chapter III" means Chapter III (quality and sufficiency of supplies) of Part III (water supply) of the Act;

"consumer" means a person to whom water is supplied for regulation 4(1) purposes by a water undertaker in the discharge of its duties under Chapter III;

"disinfection" means a process which removes or renders inactive pathogenic micro-organisms so as to satisfy the requirements of Part III of these Regulations in respect of micro-organisms (other than parameters), parasites and the parameters listed in Table A in Schedule 1 to these Regulations; and "disinfected" shall be construed accordingly;

"groundwater" means water contained in underground strata; and section 221(3) of the Water Resources Act 1991(**b**) shall have effect for the purpose of this definition as it has effect for the purpose of construing references in that Act to water contained in underground strata;

(**a**) S.I. 1989/1147, amended by S.I. 1989/1384, 1991/1837, and 2790, 1996/3001 and 1999/1524.
(**b**) 1991 c. 57.

"health authority" means an authority established by order under section 8 (health authorities) of the National Health Service Act 1977(**a**) to act for an area in England;

"indicator parameter" means a parameter listed in Schedule 2;

"local authority" means any of the following—

(i) the Common Council of the City of London;

(ii) a London borough council;

(iii) a district council;

(iv) the council of a county in which there are no district councils;

"parameter" means a property, element, organism or substance listed in the second column of Table A or Table B in Schedule 1 to these Regulations, or in Schedule 2, as read, where appropriate, with the notes to Schedule 2 and those Tables;

"pesticides and related products" means—

(a) any organic insecticide;

(b) any organic herbicide;

(c) any organic fungicide;

(d) any organic nematocide;

(e) any organic acaricide;

(f) any organic algicide;

(g) any organic rodenticide;

(h) any organic slimicide, and

(i) any product related to any of (a) to (h) (including any growth regulator),

and includes their relevant metabolites, degradation and reaction products;

"prescribed concentration or value", in relation to any parameter, means the maximum or minimum concentration or value specified in relation to that parameter in Table A or Table B in Schedule 1 as measured by reference to the unit of measurement so specified, and as read, where appropriate, with the notes to those Tables;

"regulation 4(1) purposes", in relation to the supply of water, means a supply—

(a) for such domestic purposes as consist in or include, cooking, drinking, food preparation or washing; or

(b) for any of those domestic purposes, to premises in which food is produced;

"relevant customer services committee", in relation to a water undertaker, means the committee maintained under section 28 (customer service committees) of the Act(**b**) and for the time being exercising functions in relation to that water undertaker or, where more than one committee exercises functions in relation to a particular water undertaker, the committee to which the water undertaker reports in relation to the matter in question;

"sampling point"—

(a) in relation to water supplied from a distribution network, means a point, being a consumer's tap, that is selected for the purposes of Part IV of these Regulations;

(b) in relation to water supplied from a tanker, means the point at which the water emerges from the tanker;

"specification", in relation to an indicator parameter, means the concentration, value or state, shown as applicable to that parameter in Schedule 2 as measured by reference to the unit of measurement so shown;

"state", in relation to an indicator parameter, means the state specified in relation to that parameter in Schedule 2 as measured by reference to the unit of measurement so specified;

"supply point" means a blending point, service reservoir, treatment works or other point, not being a sampling point, which the Secretary of State authorises for the purposes of regulation 6;

"water supply zone", in relation to a water undertaker and a year, means an area designated for that year by the water undertaker in accordance with regulation 3; and

"year" means calendar year.

(**a**) 1977 c. 49. Section 8 was substituted by the Health Authorities Act 1995 (c. 17), section 1.

(**b**) *See*, as to the functions of customer services committees, section 29 of the Water Industry Act 1991.

(2) Other expressions used both in these Regulations and in Council Directive 98/83/EC (on the quality of water intended for human consumption)(**a**) have the same meaning in these Regulations as they have in that Directive.

(3) Subject to paragraph (4), references in these Regulations to a service reservoir are references to any structure, other than a structure at a treatment works, in which a reserve of water that has been treated with a view to complying with the requirements of regulation 4 is contained and stored for the purpose of meeting a variable demand for the supply of water.

(4) Where references in these Regulations to a service reservoir would, but for this paragraph, include references to a structure comprising more than one compartment—

(a) each compartment which has its own water inlet and water outlet and is not connected hydraulically to any other compartment shall be treated as a single service reservoir;

(b) the compartments that are connected hydraulically shall be treated as a single service reservoir; and

(c) unless all of the compartments are connected hydraulically, the structure as a whole shall not be treated as a service reservoir.

PART II

WATER SUPPLY ZONES

Water supply zones

3.—(1) Before the beginning of each year in which it intends to supply water for regulation 4(1) purposes, a water undertaker shall designate the names and areas within its area of supply that are to be its water supply zones for that year.

(2) A water supply zone may not comprise an area whose population immediately before the beginning of the year in question is estimated by the water undertaker to exceed 100,000.

(3) A water undertaker may not vary a designation under paragraph (1) after the beginning of the year in relation to which the designation has effect.

PART III

WHOLESOMENESS

Wholesomeness

4.—(1) Water supplied—

(a) for such domestic purposes as consist in or include, cooking, drinking, food preparation or washing; or

(b) to premises in which food is produced,

shall, subject to paragraphs (4) and (5), be regarded as wholesome for the purposes of Chapter III, as it applies to the supply of water for those domestic purposes, if the requirements of paragraph (2) are satisfied.

(2) The requirements of this paragraph are—

(a) that the water does not contain—

(i) any micro-organism (other than a parameter) or parasite; or

(ii) any substance (other than a parameter),

at a concentration or value which would constitute a potential danger to human health;

(b) that the water does not contain any substance (whether or not a parameter) at a concentration or value which, in conjunction with any other substance it contains (whether or not a parameter) would constitute a potential danger to human health;

(**a**) O.J. L330, 5.12.98, p. 32.

(c) that the water does not contain concentrations or values of the parameters listed in Tables A and B in Schedule 1 in excess of or, as the case may be, less than, the prescribed concentrations or values;

(d) that the water satisfies the formula [nitrate]/50 + [nitrite]/3 ≤ 1, where the square brackets signify the concentrations in mg/1 for nitrate (NO_3) and nitrite (NO_2).

(3) The point at which the requirements of paragraph (2), in so far as they relate to the parameters set out in Part I of Table A and in Table B in Schedule 1 are to be complied with is—

(a) in the case of water supplied from a tanker, the point at which the water emerges from the tanker;

(b) in any other case, the consumer's tap.

(4) Water supplied for regulation 4(1) purposes shall not be regarded as wholesome for the purposes of Chapter III if, on transfer from a treatment works for supply for those purposes—

(a) it contains a concentration of the coliform bacteria or *E. coli* parameter (items 1 and 2 in Part II of Table A in Schedule 1) in excess of the prescribed concentrations; or

(b) it contains a concentration of nitrite in excess of 0.1mgNO_2/1.

(5) Subject to paragraph (6), water supplied for regulation 4(1) purposes shall not be regarded as wholesome for the purposes of Chapter III if, on transfer from a service reservoir for supply for those purposes, it contains a concentration of the coliform bacteria or *E. coli* parameter in excess of the prescribed concentrations.

(6) Water transferred from a service reservoir for supply for regulation 4(1) purposes shall not be regarded as unwholesome for the purposes of Chapter III because the maximum concentration for the coliform bacteria parameter is exceeded if, as regards the samples taken in any year in which the reservoir in question is in use, the results of analysis for that parameter establish that in at least 95 per cent of those samples coliforms were absent.

PART IV

MONITORING OF WATER SUPPLIES

Interpretation and application of Part IV

5.—(1) In this Part, "audit monitoring" means monitoring for the purpose of obtaining information from which it may be established—

(a) as regards the parameters listed in Tables A and B in Schedule 1, whether water supplied for regulation 4(1) purposes satisfies the provisions of Part III of these Regulations or, if a departure has been authorised under Part VI in relation to that supply, those provisions as read with the terms of that departure; and

(b) as regards indicator parameters, whether water supplied for regulation 4(1) purposes meets the specifications for those parameters.

(2) In this Part, "check monitoring" means monitoring for the purpose of obtaining information at regular intervals—

(a) as to the organoleptic and microbiological quality of water; and

(b) where relevant, as to the effectiveness of drinking-water treatment (particularly of disinfection),

for the purpose of determining—

(i) as regards the parameters listed in Tables A and B in Schedule 1, whether water supplied for regulation 4(1) purposes satisfies the provisions of Part III of these Regulations or, if a departure has been authorised under Part VI in relation to that supply, those provisions as read with the terms of that departure; and

(ii) as regards indicator parameters, whether water supplied for regulation 4(1) purposes meets the specifications for those parameters.

(3) This Part applies to water supplied for regulation 4(1) purposes by a water undertaker in the performance of its duties under Chapter III.

Monitoring: general provisions

6.—(1) For the purpose of determining whether water to which this Part applies satisfies the provisions of Part III or, if a departure has been authorised under Part VI in relation to that supply, those provisions as read with the terms of that authorisation, a water undertaker shall take, or cause to be taken, and analyse, or cause to be analysed, not less than the number of samples of the water within each of its water supply zones specified in, or in accordance with provisions of, this Part.

(2) Except in a case to which paragraph (3) applies, the parameters listed in Tables A and B in Schedule 1 and the indicator parameters shall be subject—

(a) as regards a parameter listed in column (2) of Table 1 in Schedule 3, in relation to which there is no entry in column (3) of that Table, to check monitoring;

(b) as regards a parameter so listed in relation to which there is an entry in column (3), check monitoring in the circumstances specified in that column;

(c) in any other case, audit monitoring.

(3) Where—

(a) the distribution of water in any part of a water supply zone is by tanker; and

(b) is or is likely to be an intermittent short-term supply,

samples of water from each tanker from which water is distributed shall be taken 48 hours after the commencement of the distribution from that tanker and every 48 hours thereafter until the distribution is discontinued.

(4) Of the samples taken in accordance with paragraph (3) in relation to each distribution, the first shall be analysed for compliance with the parameters *E. coli*, hydrogen ion and conductivity (item 2 in Table A in Schedule 1, item 3 in Part II of Table B in that Schedule and item 6 in Schedule 2, respectively), and the second and any subsequent samples shall be analysed for compliance with those and every other parameter.

(5) For the purposes of the application of paragraph (2)(b) to the aluminium, *Clostridium perfringens*, iron and manganese parameters (items 1, 3, 9 and 10 in Table 1 in Schedule 3), a supply which consists of both groundwater and surface water shall be deemed to be a supply which consists only of surface water.

(6) The copper, lead and nickel parameters and, subject to paragraph (7), the parameters relevant to radioactivity (total indicative dose and tritium), shall be monitored in such manner as the Secretary of State shall determine from time to time and shall specify by notice in writing given to each water undertaker.

(7) If, in relation to any water supply zone, the Secretary of State is satisfied that water supplied to that zone for regulation 4(1) purposes—

(a) gives rise to a calculated total indicative dose in respect of radioactivity that is well below the specification; or

(b) contains levels of tritium that are well below the specification,

he shall notify the water undertaker which supplies water to that zone that the total indicative dose parameter (item 8 in Schedule 2) or, as the case may be, the tritium parameter (item 10 in that Schedule), need not be monitored.

(8) The Secretary of State shall, by notice in writing—

(a) withdraw a notice under paragraph (7) given in relation to the total indicative dose parameter if he believes that water supplied to the zone in question for regulation 4(1) purposes gives rise to a calculated total indicative dose in respect of radioactivity that is not well below the specification;

(b) withdraw a notice under paragraph (7) given in relation to the tritium parameter if he believes that water supplied to the zone in question for regulation 4(1) purposes contains levels of tritium that are not well below the specification.

(9) A water undertaker which receives a notice under paragraph (8) shall then monitor the total indicative dose parameter or, as the case may be, the tritium parameter in accordance with the notice having effect for the time being under paragraph (6).

Sampling points

7. Except in relation to water supplied from a tanker, sampling points in respect of every parameter, other than a parameter for which samples are taken from a supply point authorised by or under regulation 8, shall be selected at random unless, by notice in writing to a water undertaker (whether or not on the application of the undertaker), the Secretary of State otherwise determines.

Authorisation of supply points

8.—(1) The Secretary of State, being satisfied that analysis of samples taken from—

(a) any blending point;

(b) the water leaving any service reservoir which receives water from a treatment works before its supply to any consumer; and

(c) the water leaving any treatment works,

will produce data in respect of the parameters specified as items 7, 8 and 9 to 25 in column (1) of Table 3 in Schedule 3 which are unlikely to differ in any material respect from the data that would be produced in respect of those parameters from analysis of samples obtained from sampling points, hereby authorises the use for the purposes of regulation 6 of samples in relation to those parameters taken for a water supply zone from a blending point, a service reservoir of that description or a treatment works.

(2) Subject to paragraph (3), the Secretary of State may, in relation to any parameter other than a parameter referred to in paragraph (1), on the written application of a water undertaker, authorise the use for the purposes of regulation 6 of samples taken for a water supply zone otherwise than from a sampling point; and any such authorisation may extend to all samples in relation to that parameter or to such number or proportion of those samples as is specified in the authorisation.

(3) The Secretary of State shall not grant an authorisation under paragraph (2) unless he is satisfied that analysis of samples taken from a point other than a sampling point will produce data in respect of the parameter in question which are unlikely to differ in any material respect from the data that would be produced in respect of that parameter from analysis of samples obtained from sampling points.

(4) Subject to paragraph (5), the Secretary of State may at any time modify or revoke an authorisation under paragraph (2).

(5) Unless it appears to the Secretary of State that the immediate modification or revocation of an authorisation under paragraph (2) is required in the interests of public health, he shall not modify or revoke such an authorisation without giving to the water undertaker to which the authorisation relates at least six weeks' notice of his intention to modify or revoke.

(6) A water undertaker shall notify the Secretary of State as soon as it has reasonable grounds for believing that an analysis of samples taken for a water supply zone from a point other than a sampling point would produce data in respect of the parameter in question which would differ in a material respect from the data produced by an analysis of samples taken from any of the sampling points within that zone; and the Secretary of State shall thereupon, and without the need for prior notice to the water undertaker, revoke the authorisation.

Numbers of samples

9.—(1) Subject to paragraph (2), in each year a water undertaker shall take, or cause to be taken—

(a) from its sampling points; or

(b) to the extent authorised by or under regulation 8, from its supply points,

the standard number of samples for analysis as regards residual disinfectant and each parameter listed in column (1) of Table 2 in Schedule 3 or, as the case may be, Table 3 in that Schedule.

(2) Where, in respect of a parameter subject to check monitoring—

(a) a water undertaker is of the opinion that the quality of water supplied by it to a water supply zone is unlikely to deteriorate; and

(b) in each of two successive years the results of samples taken, subject to paragraph (3), in accordance with these Regulations show no significant variation and—

(i) if the parameter is colony counts, have shown no abnormal change;

(ii) if the parameter is hydrogen ion concentration (item 8 in Table 1), have established a pH value that is not less than 6.5 and not more than 10.0;

(iii) in any other case, have established a concentration or value for that parameter that is significantly lower than the prescribed concentration or value, or specification,

the number of samples to be taken in the following year for that parameter may be the reduced number.

(3) Where the following year is 2004, paragraph (2)(b) shall apply as if for "these Regulations" there were substituted "the 1989 Regulations"; and where the following year is 2005, paragraph (2)(b) shall apply as if before "these Regulations" there were inserted "the 1989 Regulations and".

(4) Samples required to be taken by this regulation shall be taken at regular intervals.

(5) In this regulation—

(a) in relation to sampling points, residual disinfectant or a parameter and the supply of water to an estimated population within one of the ranges shown in column (2) of Table 2 in Schedule 3, "the standard number" and "the reduced number" means the number shown in column (4) and column (3), respectively, of that Table as applicable to that substance or parameter by reference to a population within that range;

(b) in relation to supply points, each of the parameters specified as items 7, 8 and 9 to 25 in column (1) of Table 3 in Schedule 3, and the supply of a volume of water within one of the ranges shown in column (3) of that Table, "the standard number" and "the reduced number" means, subject to sub-paragraph (c), the number shown in column (5) and column (4), respectively, of that Table as applicable to that parameter by reference to a volume supplied within that range; and

(c) where a particular supply point is in use for part only of a year, "the standard number" and "the reduced number" means the number that bears to the number shown in column (5) and column (4), respectively, of Table 3, the same proportion as the number of days in that year in which the supply point has been in use bears to 365.

Sampling: further provisions

10. As soon as a water undertaker has reasonable grounds for believing that any element, organism or substance, other than residual disinfectant or a parameter, whether alone or in combination with a parameter or any other element, organism or substance, may cause the supply within any of its water supply zones to be a supply which does not satisfy—

(a) the provisions of Part III of these Regulations or,

(b) if a departure has been authorised under Part VI, those provisions as read with the terms of that authorisation,

it shall take, or cause to be taken, sufficient samples from water within that zone (whether from a service reservoir, a treatment works or otherwise) in respect of that element, organism or substance, in order to establish whether that water is wholesome.

PART V

MONITORING—ADDITIONAL PROVISIONS

Interpretation of Part V

11. In this Part, in relation to residual disinfectant or a parameter specified as item 1, 2, 3, 4 or 6 in column (1) of Table 3 in Schedule 3, and the supply of a volume of water within one of the ranges shown in column (3) of that Table, "the standard number" and "the reduced number" means the number shown in column (5) and column (4), respectively, of that Table as applicable to residual disinfectant or the parameter in question by reference to a volume of water within that range.

Sampling for particular substances and parameters

12. For the purposes of establishing the quality of water to be supplied to any of its water supply zones, a water undertaker shall take, or cause to be taken, and analyse, or cause to be analysed, not less than the number of samples specified in this Part.

Sampling at treatment works

13.—(1) Subject to paragraphs (2), (4) and (6), in each year a water undertaker shall take, or cause to be taken, from the point at which water leaves each treatment works which serves its water supply zones, the standard number of samples for analysis—

(a) for determining the concentration of residual disinfectant;

(b) for determining whether, in relation to the colony counts and turbidity parameters, water leaving treatment works meets the specifications for those parameters set out in Schedule 2; and

(c) for testing for compliance with the prescribed concentrations or values in respect of the coliform bacteria, *E. coli*, and nitrite parameters for water leaving treatment works.

(2) Where in each of two successive years the results of the analysis of samples taken, subject to paragraph (3), in accordance with these Regulations have established—

(a) in respect of the coliform bacteria, *E. coli* or nitrite parameter, that the maximum concentration has not been exceeded;

(b) in respect of the turbidity parameter, that the specification has been met;

(c) in respect of the colony counts parameter, that there has been no significant increase,

the number of samples to be taken in respect of that parameter in the next following year from the point at which water leaves that treatment works may, subject to paragraph (4), be the reduced number.

(3) Paragraph (2) shall apply—

(a) where the following year is 2004, as if for "these Regulations" there were substituted "the 1989 Regulations"; and

(b) where the following year is 2005, as if before "these Regulations" there were inserted "the 1989 Regulations and".

(4) In respect of the coliform bacteria parameter and the *E. coli* parameter, the reduced number of samples may be taken in accordance with paragraph (2) only if the water undertaker is of the opinion—

(a) that there is no foreseeable risk that the supply will exceed the maximum concentration for that parameter; or

(b) that the treatment works is designed to secure that, in the event of a failure of the disinfection process, water that has not been disinfected cannot enter the supply.

(5) Samples required to be taken by this regulation shall be taken at regular intervals.

(6) Where a particular treatment works is in use for part only of a year, the minimum number of samples to be taken from that works in that year shall bear to the standard number or, as the case may be, the reduced number, the same proportion as the number of days in that year in which the treatment works has been in use bears to 365.

Sampling at service reservoirs

14. A water undertaker shall take, or cause to be taken, from each of its service reservoirs in each week in which the reservoir is in use, one sample for analysis—

(a) for testing for compliance with the prescribed concentrations or values in respect of the parameters *E. coli* and coliform bacteria;

(b) for determining the concentration of residual disinfectant; and

(c) for determining whether the specification in relation to the colony counts parameter is met.

Sampling: new sources

15.—(1) This regulation applies as respects—

(a) any source which has not been used for the supply of water by a water undertaker at any time since 1st January 2004; and

(b) any source which has been so used but not so used for a period of six months preceding the date on which the water undertaker proposes to supply water from it.

(2) A water undertaker shall—

(a) before it supplies water from a source mentioned in paragraph (1)(a); and

(b) as soon as is reasonably practicable after it has begun to supply water from a source mentioned in paragraph (1)(b),

take, or cause to be taken, in accordance with paragraph (3), such samples of that water as will enable it to establish—

(aa) whether water can be supplied from that source without contravening section 68(1) of the Act; and

(bb) the treatment necessary to ensure that section 68(1) of the Act is complied with in relation to the supply of that water.

(3) Samples shall be taken—

(a) in the case of a source mentioned in paragraph (1)(a), in respect of—

(i) the parameters listed in Schedules 1 and 2; and

(ii) any other element, organism or substance which, in the opinion of the undertaker, may cause the supply to contravene section 68(1) of the Act;

(b) in the case of a source mentioned in paragraph (1)(b), in respect of—

(i) the parameters listed in Table A in Schedule 1;

(ii) the conductivity, hydrogen ion and turbidity parameters; and

(iii) any other parameter as regards which the water undertaker is of the opinion that its concentration or value is likely to have altered since the last occasion on which water from that source was analysed.

Collection and analysis of samples

16.—(1) A water undertaker shall secure, so far as is reasonably practicable, that in taking, handling, transporting, storing and analysing any sample required to be taken for the purposes of Part IV or this Part of these Regulations, or causing any such sample to be taken, handled, transported, stored and analysed, the appropriate requirements are satisfied.

(2) In paragraph (1) "the appropriate requirements" means such of the following requirements as are applicable—

(a) the sample is representative of the quality of the water at the time of sampling;

(b) the sample is not contaminated when being taken;

(c) the sample is kept at such temperature and in such conditions as will secure that there is no material alteration of the concentration or value for the measurement or observation of which the sample is intended;

(d) the sample is analysed as soon as may be after it has been taken—

(i) by or under the supervision of a person who is competent to perform that task; and

(ii) with the use of such equipment as is suitable for the purpose;

(e) any laboratory at which samples are analysed has a system of analytical quality control that is subjected from time to time to checking by a person who is—

(i) not under the control of either the laboratory or the undertaker; and

(ii) approved by the Secretary of State for that purpose.

(3) For the purposes of paragraph (2)(e), "laboratory" means a person who undertakes the analysis of samples for the purposes of this Part, whether at the time and place at which the samples are taken or otherwise.

(4) A water undertaker shall maintain such records as are sufficient to enable it to establish, in relation to each sample taken for the purposes of Part IV or this Part, that such of the appropriate requirements as are applicable to that sample have been satisfied.

(5) Subject to paragraph (7), for the purpose of establishing, within acceptable limits of deviation and detection, whether the sample contains concentrations or values which contravene the prescribed concentrations or values, or exceed the specifications for indicator parameters—

(a) the method of analysis specified in column (2) of Table A1 in Schedule 4 shall be used for the parameter specified in relation to that method in column (1);

(b) the method of analysis used for a parameter specified in column (1) of Table A2 in that Schedule must be capable, at the time of use—

(i) of measuring concentrations and values equal to the parametric value with the trueness and precision specified in relation to that parameter in columns (2) and (3) of that Table; and

(ii) of detecting the parameter at the limit of detection specified in relation to that parameter in column (4) of that Table;

(c) the method of analysis used for determining compliance with the hydrogen ion parameter must be capable, at the time of use, of measuring concentrations equal to the parametric value with a trueness of 0.2 pH unit and a precision of 0.2 pH unit; and

(d) the method of analysis used for the odour and taste parameters must be capable, at the time of use, of measuring values equal to the parametric value with a precision of 1 dilution number at 25°C.

(6) For the purposes of paragraph (5)—

"limit of detection" is to be calculated as—

(a) three times the relative within batch standard deviation of a natural sample containing a low concentration of the parameter; or

(b) five times the relative within batch standard deviation of a blank sample;

"precision" (the random error) is the standard deviation (within a batch and between batches) of the spread of results about the mean; and

"trueness" (the systematic error) is the difference between the mean value of the large number of repeated measurements and the true value.

(7) Subject to paragraph (9), the Secretary of State may, on the application of any person, authorise a method of analysis other than that specified in paragraph (5)(a) ("the prescribed method").

(8) An application for the purposes of paragraph (7) shall be made in writing and shall be accompanied by—

(a) a description of the method of analysis; and

(b) the results of the tests carried out to demonstrate the reliability of that method and its equivalence to the prescribed method.

(9) The Secretary of State shall not authorise the use of the method proposed in the application unless he is satisfied that the results obtained by the use of that method are at least as reliable as those produced by the use of the prescribed method.

(10) An authorisation under paragraph (7) may be subject to such conditions as the Secretary of State thinks fit.

(11) The Secretary of State may at any time, by notice in writing served on the water undertaker to which an authorisation under paragraph (7) has been given, revoke the authorisation, but no such notice shall be served later than three months before the date on which the revocation is stated to take effect.

PART VI

INVESTIGATIONS, AUTHORISATION OF DEPARTURES AND REMEDIAL ACTION

Investigations: Schedule 1 parameters

17.—(1) Subject to paragraph (3), where a water undertaker has reason to believe that water supplied by it for regulation 4(1) purposes—

(a) fails, or is likely to fail, to satisfy a requirement of paragraph (2) of regulation 4; or

(b) is to be regarded as unwholesome by virtue of paragraph (4) of that regulation; or

(c) if paragraph (6) of that regulation were ignored, would be regarded as unwholesome by virtue of paragraph (5) of that regulation,

the water undertaker shall immediately take such steps as are necessary to identify the matters specified in paragraph (2) below.

(2) The matters referred to in paragraph (1) are—

(a) the cause and extent of the failure or, as the case may be, the apprehended failure;

(b) the Schedule 1 parameters in respect of which the prescribed concentration or value has not been, or is unlikely to be, achieved; and

(c) in relation to each parameter so identified, whether the failure, or apprehended failure, to achieve the prescribed concentration or value is attributable—

(i) to the domestic distribution system;

(ii) to the maintenance of that system; or

(iii) to neither of those matters.

(3) Where a departure has been authorised under Part VI—

(a) paragraph (1) shall apply only in respect of the Schedule 1 parameters (if any) that are not specified in the authorisation; and

(b) a water undertaker which has reason to believe that water supplied by it for regulation 4(1) purposes fails, or is likely to fail, to satisfy the concentration or value required by the authorisation in relation to any Schedule 1 parameter, shall immediately take such steps as are necessary to identify the matters specified in paragraph (4).

(4) The matters referred to in paragraph (3) are—

(a) the cause and extent of the failure or, as the case may be, the apprehended failure;

(b) the Schedule 1 parameters in respect of which the required concentration or value has not been, or is unlikely to be, achieved; and

(c) in relation to each parameter so identified, whether the failure, or apprehended failure, to achieve that concentration or value is attributable—

(i) to the domestic distribution system;

(ii) to the maintenance of that system; or

(iii) to neither of those matters.

(5) As soon as may be after the matters specified in paragraph (2) or (4), as the case may be, have been identified, the water undertaker shall notify the Secretary of State—

(a) of those matters;

(b) in relation to each parameter identified in accordance with paragraph (2)(b) or (4)(b), whether it is the opinion of the water undertaker that a failure in respect of that parameter is likely to recur; and

(c) of the action (if any) taken by the water undertaker in relation to a failure which is attributable to the domestic distribution system or the maintenance of that system.

(6) Where the water undertaker has identified a failure attributable to the domestic distribution system or to the maintenance of that system, it shall, at the same time as notification is given under paragraph (5)—

(a) by notice in writing to those of its consumers—

(i) to whom it supplies water for regulation 4(1) purposes; and

(ii) who are likely to be affected by the failure,

inform them of the nature of the failure and provide details of the steps (if any) that, in the opinion of the water undertaker, it is necessary or desirable for those consumers to take in the interests of their health; and

(b) send a copy of that notice to the Secretary of State and to each appropriate local authority.

(7) A water undertaker which has complied with the requirements of paragraphs (5) and (6) need not, in respect of the same failure or apprehended failure, comply with the requirements of regulation 35(9).

(8) Where such a failure as is mentioned in paragraph (6) affects the supply of water to the public in premises in which water is so supplied, the water undertaker shall, as soon as may be, notify such persons as the Secretary of State may from time to time determine for the purposes of this paragraph of the matters of which notice is given to consumers in accordance with paragraph (6)(a).

(9) Where such a failure as is mentioned in paragraph (1) relates to the copper or lead parameter, the water undertaker shall, as soon as reasonably practicable after the occurrence, modify or replace such of its pipes and their associated fittings as it knows or has reason to believe have the potential for contributing to copper or lead in the water supplied to the premises, so as to eliminate that potential (whether or not the presence of copper or lead in those pipes contributed to the failure).

Investigations: indicator parameters

18.—(1) Where a water undertaker has reason to believe that water supplied by it for regulation 4(1) purposes does not meet the specifications for indicator parameters set out in Schedule 2, it shall take such steps as are necessary to identify—

(a) the reason why the specifications are not met;

(b) the indicator parameters in respect of which the specifications are not met; and

(c) if the specification for the coliform bacteria or colony count parameter (items 4 and 5 in Schedule 2) is not met, whether the inability to meet that specification is attributable —

(i) to the domestic distribution system;

(ii) to the maintenance of that system; or

(iii) to neither of those matters.

(2) As soon as may be after the matters specified in paragraph (1) have been identified, the water undertaker shall notify the Secretary of State—

(a) of those matters; and

(b) in relation to each parameter identified in accordance with paragraph (1)(b), whether it is the opinion of the water undertaker that a recurrence of the inability to meet the specification in respect of that parameter is likely.

(3) Where, in a case to which paragraph (1)(c) applies, the inability to meet the specification has been identified as attributable to the domestic distribution system or to the maintenance of that system, the water undertaker shall, at the same time as notification is given under paragraph (2)—

(a) by notice in writing to those of its consumers—

(i) to whom it supplies water for regulation 4(1) purposes; and

(ii) who are likely to be affected,

inform them of the nature of the problem and provide details of the steps (if any) that, in the opinion of the water undertaker, it is necessary or desirable for those consumers to take in the interests of their health; and

(b) send a copy of that notice to the Secretary of State and to each appropriate local authority.

(4) Where such an inability as is mentioned in paragraph (3) is, in the opinion of the water undertaker, likely to affect the supply of water to the public in premises in which water is so supplied, it shall, at the same time as notice is given under paragraph (2), notify such persons as the Secretary of State may from time to time determine for the purposes of this paragraph of the matters of which notice is given to consumers in accordance with paragraph (3)(a).

Action by Secretary of State

19.—(1) Where—

(a) a notification given in accordance with paragraph (5) of regulation 17 in the circumstances mentioned in paragraph (1) of that regulation (including that paragraph as read with paragraph (3)(a) of that regulation)—

(i) discloses a failure in respect of a parameter specified in Part II of Table A or in Table B in Schedule 1; and

(ii) that the failure is not attributable to the domestic distribution system or the maintenance of that system; and

(b) it appears to the Secretary of State that the failure in respect of that parameter is not trivial and is likely to recur,

the Secretary of State may, by notice in writing to the water undertaker, require the water undertaker to seek a departure in accordance with regulation 20.

(2) The exercise by the Secretary of State of the power conferred by paragraph (1) shall not preclude the exercise by him, in relation to the same circumstances, of the power conferred by section 18 of the Act.

(3) Where—

(a) a notification given in accordance with paragraph (5) of regulation 17 in the circumstances mentioned in paragraph (3)(b) of that regulation discloses—

(i) a failure in relation to any parameter specified in Part II of Table A or in Table B in Schedule 1; and

(ii) that the failure is not attributable to the domestic distribution system or the maintenance of that system; and

(b) it appears to the Secretary of State that the failure in respect of that parameter is not trivial and is likely to recur,

the Secretary of State shall consider whether the terms of the authorisation under regulation 20 should be modified.

(4) Where—

(a) a notification given in accordance with regulation 18(2) discloses an inability to meet the specification applicable to an indicator parameter; and

(b) the Secretary of State considers that the inability poses a risk to human health,

he may, by notice in writing to the water undertaker, require the water undertaker to take such steps as may be determined by him and specified in the notice.

(5) It shall be the duty of a water undertaker to which a notice under paragraph (4) has been given to take the steps specified in the notice.

Authorisation of temporary supply of water that is not wholesome

20.—(1) Subject to paragraph (2), the Secretary of State may, upon the written application of a water undertaker, authorise in accordance with regulation 21 a departure from the provisions of Part III of these Regulations in so far as they relate to—

(a) a parameter specified in Part II of Table A or in Table B in Schedule 1; and

(b) the supply of water by that undertaker in any of its water supply zones.

(2) The Secretary of State shall not authorise a departure under paragraph (1) unless he is satisfied—

(a) that the authorisation is necessary to maintain in that zone a supply of water for regulation 4(1) purposes;

(b) that a supply of water for those purposes cannot be maintained in that zone by any other reasonable means; and

(c) that the supply of water in accordance with the authorisation does not constitute a potential danger to human health.

(3) A water undertaker shall provide with its application—

(a) a statement—

(i) of the grounds on which the authorisation is sought;

(ii) of the water supply zone in respect of which the authorisation is sought;

(iii) of the parameters in respect of which the prescribed concentration or value cannot be met;

(iv) in respect of each parameter to which paragraph (iii) applies, of the results of the analysis of the samples taken in the water supply zone in question during the 12 months immediately preceding the first day on which the prescribed concentration or value could not be met;

(v) in respect of each parameter to which paragraph (iii) applies, of the results of the analysis of the samples (if any) taken in the water supply zone in question between the first day on which the prescribed concentration or value could not be met and the date of the application;

(vi) of the average daily quantity of water supplied to that zone or, if that quantity cannot readily be ascertained, of the average daily quantity of water supplied from the treatment works that supplies water to that zone;

(vii) of the estimated population of that zone;

(viii) as to whether, if a departure were authorised in the terms sought, any relevant food-production undertaking would be affected;

(ix) of the period for which the authorisation is sought; and

(x) of the reasons why the supply cannot be maintained by other reasonable means;

(b) a scheme for monitoring the quality of water supplied in the zone during the period for which the authorisation is sought; and

(c) a summary of the steps that it proposes to take in order to secure that the supply fully satisfies the requirements of Part III, including—

(i) a timetable for the work;

(ii) an estimate of the cost of the work; and

(iii) provisions for reviewing the progress of the work and for reporting the result of the review to the Secretary of State.

(4) At the same time as it makes an application for an authorisation under paragraph (1), the water undertaker shall serve on—

(a) every appropriate local authority;

(b) every appropriate health authority; and

(c) the relevant customer services committee,

a copy of the application and of the statement, scheme and summary referred to in paragraph (3).

(5) A body on whom documents have been served in accordance with paragraph (4) may make representations to the Secretary of State in connection with the application; and any such representations shall be made not later than the end of the period of 30 days beginning with the date on which the application for the authorisation is made.

Authorisations: terms and conditions

21.—(1) Subject to paragraph (2), a departure may be authorised under regulation 20 for such period as is in the Secretary of State's opinion reasonably required for securing a supply of water for regulation 4(1) purposes that fully satisfies the requirements of Part III ("the departure period").

(2) No departure period may exceed three years.

(3) Subject to paragraph (4), an authorisation under regulation 20—

(a) shall specify—

(i) the grounds on which it is granted;

(ii) every water supply zone in respect of which it is granted;

(iii) the extent to which a departure from the prescribed concentration or value of any parameter is authorised;

(iv) in respect of each parameter to which paragraph (iii) applies, the results of the analysis of the samples taken in each water supply zone in question during the 12 months immediately preceding the first day on which the prescribed concentration or value could not be met;

(v) in respect of each parameter to which paragraph (iii) applies, the results of the analysis of the samples (if any) taken in each water supply zone in question between the first day on which the prescribed concentration or value could not be met and the date of the application;

(vi) the average daily quantity of water supplied from each of those zones or, if that quantity cannot readily be ascertained, the average daily quantity of water supplied from the treatment works that supplies water to that zone;

(vii) the estimated population of each of those zones;

(viii) whether or not any relevant food-production undertaking would be affected; and

(ix) the departure period; and

(b) shall require the implementation of a scheme for monitoring the quality of water supplied in each of those zones during the departure period (which may be, but need not be, the scheme submitted in accordance with regulation 20(3)(b)); and

(c) shall require the carrying out of the steps which, in his opinion, are reasonably required in order to secure that the supply fully satisfies the requirements of Part III (whether or not the steps are those proposed in the summary submitted in accordance with regulation 20(3)(c)); and

(d) shall specify, in relation to those steps—

(i) the timetable for the work;

(ii) an estimate of the cost of the work; and

(iii) provisions for reviewing the progress of the work and for reporting to him the result of the review; and

(e) shall require the taking of such steps as may be specified to give to the population within the water supply zones to which the authorisation applies and, in particular, to those groups of that population for which the supply of water in accordance with the authorisation could present a special risk, advice as to the measures (if any) that it would be advisable in the interests of their health for persons within that population or those groups to take for the whole or any part of the departure period.

(4) Where the Secretary of State is of the opinion—

(a) that the extent of the contravention of the requirements of Part III as respects any parameter is trivial; and

(b) that the prescribed concentration or value as respects that parameter is likely to be achieved within the period of 30 days beginning with the day on which the prescribed concentration or value in respect of that parameter was contravened,

the particulars to be specified in the authorisation shall be those required by paragraph (3)(a)(iii) and (ix), and sub-paragraphs (b) to (e) of that paragraph shall not apply.

(5) Where it appears to the Secretary of State that a supply of water that fully satisfies the requirements of Part III cannot be restored by the end of the departure period, he may authorise a further departure.

(6) Paragraphs (1) to (4) shall apply to a further departure as they apply to a departure authorised under regulation 20.

(7) Where it appears to the Secretary of State that a supply of water that fully satisfies the requirements of Part III cannot be restored by the end of the departure period relevant to an authorisation under paragraph (5), he may, in accordance with Article 9(2) of Council Directive 98/83/EEC, authorise a third departure.

(8) Paragraph (3) shall apply to a departure authorised under paragraph (7) as it applies to a departure authorised under regulation 20, but with the substitution for the words "Subject to paragraph (4)" of the words "Subject to any direction of the Commission".

Authorisations: other limitations

22. An authorisation under regulation 20 or regulation 21 may be limited to water supplied—

(a) from particular sources or classes of source;

(b) to particular water supply zones or to zones of particular descriptions.

Publicity for authorisations

23. As soon as reasonably practicable after a departure has been authorised, the water undertaker shall—

(a) publish in a newspaper circulating in the area in which the water supply zone to which the authorisation relates is situated—

(i) except in a case to which paragraph (4) of regulation 21 applies, a notice containing a statement of the matters specified in paragraph (3)(a)(ii), (iii), (viii) and (ix) of that regulation;

(ii) in a case to which paragraph (4) of regulation 21 applies, and if the Secretary of State so requires, a notice containing a statement of the matters specified in paragraph (3)(a)(ii), (iii) and (ix) of that regulation;

(b) give such other public notice of the authorisation and of its terms and conditions as the Secretary of State may, by notice in writing to the undertaker, reasonably require.

Revocation and modification of authorisations

24.—(1) Subject to paragraphs (2) and (3), the Secretary of State may at any time modify or revoke an authorisation under regulation 20.

(2) The Secretary of State shall not revoke or modify an authorisation under regulation 20 without giving at least six months' notice in writing of his intention to do so to—

(a) the water undertaker to which the authorisation relates;

(b) the appropriate local authority;

(c) the appropriate health authority; and

(d) the relevant customer services committee,

but he may revoke or modify an authorisation without notice if it appears to him that immediate revocation or modification is required in the interests of public health.

(3) A water undertaker on whose application a departure has been authorised under this Part shall notify the Secretary of State as soon as the circumstances which gave rise to the application cease to exist; and the Secretary of State shall thereupon revoke the authorisation without the need for prior notice.

PART VII

WATER TREATMENT

Interpretation

25. In this Part—

"regulation 29 requirements" means the requirements of paragraphs (2) and (4) of regulation 29;

"risk assessment", in relation to a treatment works, means an assessment for that treatment works, to establish whether there is, or continues to be, a significant risk from cryptosporidium oocysts in water supplied from the works;

"significant risk from cryptosporidium", in relation to water supplied from a treatment works, means a significant risk that the average number of cryptosporidium oocysts per 10 litres of water supplied from the works for regulation 4(1) purposes, if sampled and analysed in accordance with regulation 29(5) to (15), would at any time be one or more; and

"surface water" does not include water from a spring.

Treatment of raw water

26.—(1) In carrying out such of its functions under Chapter III as comprise the supply of water for regulation 4(1) purposes, a water undertaker shall not, subject to paragraph (2), supply water from any source which consists of or includes raw water unless the water has been disinfected and, in the case of surface water, subjected to at least such further treatment as is specified in paragraph (3).

(2) This paragraph shall not require a water undertaker to disinfect such groundwaters as are specified in an authorisation given by the Secretary of State for the purposes of this paragraph.

(3) The further treatment mentioned in paragraph (1) is such treatment as is required to secure compliance with Council Directive 75/440/EC (quality required of surface water intended for the abstraction of drinking water)(**a**); and for the purposes of this regulation, surface water shall be treated as falling within category A1 or A2 or A3 set out in Annex I to that Directive if it is abstracted from waters for which the classification to be currently satisfied in accordance with section 82(1) of the Water Resources Act 1991(**b**) is, as appropriate, DW1 or DW2 or DW3, as set out in the Surface Waters (Abstraction for Drinking Water) (Classification) Regulations 1996(**c**).

(4) Except with the consent of the Secretary of State, water shall not be abstracted for supply for domestic purposes which include drinking except from waters to be treated as falling within category A1 or A2 or A3 in the Annex mentioned in paragraph (3).

Risk assessment for cryptosporidium

27.—(1) Where at any time before 1st January 2001 a water undertaker has been required to comply with regulation 23B of the 1989 Regulations (**d**) at a treatment works, it may on or after that date carry out a risk assessment.

(2) Where a risk assessment has not been submitted to the Secretary of State pursuant to regulation 23A(1) of the 1989 Regulations, in respect of any treatment works from which water was first supplied for regulation 4(1) purposes after 30th June 1999(**e**) and before 1st January 2001, the water undertaker operating that works shall carry out a risk assessment on or before 28th February 2001.

(3) Where, at any time after 31st December 2000, a water undertaker proposes to bring into operation a treatment works from which it intends to supply water for regulation 4(1) purposes, it shall carry out a risk assessment in respect of that works.

(4) Where a water undertaker becomes aware of any factors which make it likely that a risk assessment will establish that there is a significant risk from cryptosporidium it shall notify the Secretary of State in writing, specifying the relevant factors.

(5) The Secretary of State may at any time by notice in writing require a water undertaker to carry out a risk assessment by a date specified in the notice to establish whether there is a significant risk from cryptosporidium.

Procedure following risk assessment, and prohibition of supply

28.—(1) Where a water undertaker carries out a risk assessment under any provision of regulation 27, it shall submit to the Secretary of State a report of the assessment.

(2) A report of a risk assessment shall set out the results of the assessment, including—

(a) a statement that the assessment has established—

(i) that there is a significant risk from cryptosporidium; or

(ii) that there is no such risk; and

(b) a description of the methods used to carry out the assessment.

(**a**) OJ No. L 194, 16.6.75, p. 26.
(**b**) 1991 c. 57.
(**c**) S.I. 1996/3001.
(**d**) Regulations 23A and 23B were inserted by S.I. 1999/1524.
(**e**) The date on which regulation 23A of the Water Supply (Water Quality) Regulations 1989 came into force.

(3) Where the Secretary of State considers that the assessment that is the subject of a report submitted to him in accordance with paragraph (1) has not been carried out satisfactorily, he shall serve a notice on the water undertaker which—

(a) sets out his reasons for considering that the assessment has not been carried out satisfactorily; and

(b) requires the water undertaker, by a date specified in the notice, to carry out a further risk assessment and submit to him a report of that assessment,

and the water undertaker shall comply with the requirement by the date specified.

(4) Where—

(a) a report submitted to the Secretary of State in accordance with paragraph (1) includes a statement that the assessment has established that there is no significant risk from cryptosporidium; and

(b) the Secretary of State is satisfied, on the basis of the report, that the risk assessment has been carried out satisfactorily,

he shall notify the water undertaker that he is so satisfied; and if at the time of the submission of the report the water undertaker was, or was treated as, required to comply with regulation 29 requirements, it shall cease to be required to comply with them from the date on which it receives the notification.

(5) Where—

(a) a report is submitted to the Secretary of State in accordance with paragraph (1);

(b) the report includes a statement that the assessment has established that there is a significant risk from cryptosporidium; and

(c) the Secretary of State is satisfied, on the basis of the report, that the risk assessment has been carried out satisfactorily,

the Secretary of State shall notify the water undertaker that he is so satisfied and shall require the water undertaker to provide him with an estimate of the earliest practicable date by which it can comply with regulation 29 requirements.

(6) A water undertaker which has received a notice under paragraph (5) shall provide the estimate required by the notice within three months of the receipt of the notice.

(7) Where the Secretary of State receives an estimate pursuant to a notice under paragraph (6) he shall give the water undertaker notice of the date which he considers to be the earliest practicable date by which the water undertaker can comply with regulation 29 requirements; and the water undertaker shall comply with those requirements from that date.

(8) Where a water undertaker is required to comply with regulation 29 requirements at a treatment works, it may at any time carry out a further risk assessment for that treatment works to establish whether there continues to be a significant risk from cryptosporidium.

(9) A water undertaker shall not supply water for regulation 4(1) purposes from any treatment works on or after 1st October 2001 unless—

(a) it has received a notice under regulation 23A(9) of the 1989 Regulations or paragraph (4) above in respect of that works; or

(b) where, pursuant to a notice given under paragraph (7) above, or regulation 23A(7) of the 1989 Regulations, it is required to comply with regulation 29 requirements or, in accordance with regulation 29(1), is treated as subject to those requirements, it is taking steps to comply with those requirements.

Treatment for cryptosporidium

29.—(1) A water undertaker which, immediately before 1st January 2001, is subject to a requirement under regulation 23A of the 1989 Regulations to comply with the requirements of regulation 23B of those Regulations shall, for the purposes of the following provisions of this regulation and of regulation 28 of these Regulations, be treated on and after 1st January 2001 as subject to a requirement under regulation 28 to comply with regulation 29 requirements.

(2) A water undertaker which is, or is treated as, required under regulation 28 to comply with regulation 29 requirements shall, in carrying out such of its functions under Part III of the Act as relate to the supply of water for regulation 4(1) purposes, use a process for treating the water intended to be supplied which secures that the average number of cryptosporidium oocysts per 10 litres of water is less than one.

(3) For the purposes of paragraph (2), a process secures that the average number of cryptosporidium oocysts per 10 litres of water is less than one only if—

(a) the water is sampled, and collection devices are analysed, in accordance with the following provisions of this regulation; and

(b) each collection device, when analysed under paragraph (12) or (13), indicates that the water sampled has been treated so as to secure that the average number of cryptosporidium oocysts per 10 litres of water is less than one.

(4) A water undertaker which is, or is treated as, required under regulation 28 to comply with regulation 29 requirements shall, in using the process referred to in paragraph (2), monitor its effectiveness by securing compliance with the requirements of paragraphs (5) to (15).

(5) Subject to paragraph (6), a continuous sample of water, consisting of at least 40 litres per hour on average during each sampling period, shall be taken from each point at which water leaves the treatment works and steps shall be taken to ensure that the sample is not contaminated when being taken.

(6) Where water which is subjected to the same treatment at the same treatment facilities before it leaves a treatment works leaves the works from more than one point, paragraph (5) shall require a continuous sample to be taken at only one of those points.

(7) For the purposes of the requirement in paragraph (5) to take a continuous sample of water, no account shall be taken of—

(a) an interruption in the taking of the sample of less than one hour due to the changing of a collection device in accordance with paragraph (9); or

(b) an interruption in the taking of the sample during a period when water is not being supplied from the monitoring point.

(8) A sample of water taken pursuant to paragraph (5) shall, as it is taken and without any further treatment, be passed through an approved collection device contained in approved sampling equipment which records the volume of water sampled.

(9) Subject to paragraph (10), a water undertaker shall change the collection device through which water is being passed in accordance with paragraph (8) at least once a day by removing it in an approved manner from the relevant sampling equipment and replacing it in an approved manner with a clean collection device; and a record shall be made of the volume of water passed through the collection device which has been removed and that record shall be retained for a period of one year or such longer period as the Secretary of State may, by notice in writing to the water undertaker, require.

(10) Where, due to interruptions in the taking of a sample during periods when water is not being supplied from a monitoring point, the rate of water passed through a collection device is less than 200 litres per day, a water undertaker shall not be required to change the collection device in accordance with paragraph (9) until the day on which the total volume of water that has passed through the device equals or exceeds 200 litres.

(11) A collection device removed from sampling equipment shall, prior to being analysed, be maintained in an approved manner so as to secure that there is no material alteration of the state of the device which could affect the results of the analysis.

(12) A collection device shall, subject to paragraph (13), within three days of the date on which it is removed from the sampling equipment be analysed for the purposes of establishing whether it contains cryptosporidium oocysts at a level which indicates that the water sampled has not been treated so as to secure that the average number of cryptosporidium oocysts per 10 litres of water is less than one.

(13) Where—

(a) there is a significant increase in the turbidity of water being sampled for the purpose of this regulation; or

(b) some other indication that the number of cryptosporidium oocysts in the water may have increased,

a water undertaker shall immediately change the collection device through which the water is being passed, and the removed collection device shall be analysed as soon as practicable and in any case not later than the end of the day after that on which it was removed.

(14) The analysis of collection devices for the purposes of this regulation shall be carried out at an approved laboratory using approved equipment and approved analytical systems and methods.

(15) Following the analysis of a collection device for the purposes of this regulation, the person by whom or under whose supervision the analysis has been carried out shall, within the applicable time limit for the analysis set out in paragraph (12) or (13), certify the results of the analysis, setting out the average number of cryptosporidium oocysts per 10 litres of water contained in the water sampled, as indicated by the level of cryptosporidium oocysts contained in the collection device.

(16) In this regulation—

"approved" means approved by the Secretary of State for the purpose of this regulation; and

"day" means the period of 24 hours commencing immediately after midnight.

Contamination from pipes

30.—(1) Where there is a risk ("the prescribed risk") that water supplied by a water undertaker would, for the reason mentioned in paragraph (2), after leaving the undertaker's pipes—

(a) contain a concentration of copper in excess of 2mg/litre; or

(b) contain a concentration of lead in excess of 10μg/litre,

the water undertaker shall, subject to paragraph (3), treat the water in such a way as will, in its opinion, eliminate the prescribed risk or reduce it to a minimum.

(2) The reason referred to in paragraph (1) is the presence in the water of a concentration of copper or lead which is attributable to the fact that copper or lead is the major component of such a pipe as is mentioned in section 68(3)(a) of the Act, or its associated fittings.

(3) Paragraph (1) shall not require an undertaker to treat water—

(a) if the treatment is unlikely to achieve a significant reduction in the concentration of copper or lead; or

(b) if treatment is not reasonably practicable.

(4) Where at any time in the period beginning with 25th December 2003 and ending immediately before 25th December 2013, a water undertaker—

(a) has reason to believe that water supplied by it for regulation 4 purposes from a pipe to which paragraph (5) applies contains, at the consumer's tap, a concentration of lead which exceeds 10μg/1 but does not exceed 25μg/1; and

(b) has received from the owner of premises to which water is so supplied notice in writing—

(i) of the owner's intention to replace so much of the pipe as belongs to him; and

(ii) of his desire that the water undertaker replaces the remainder of the pipe,

the water undertaker shall modify or replace its part of the pipe.

(5) This paragraph applies to a pipe—

(a) of which the major component is lead;

(b) which is subject to water pressure from a water main or would be so subject but for the closing of some valve; and

(c) which belongs, as to part, to a water undertaker and, as to the remainder, to the owner of any premises to which the undertaker supplies water for regulation 4 purposes.

Application and introduction of substances and products

31.—(1) In this regulation—

"the Directive" means Council Directive 89/106/EEC on the approximation of laws, regulations and administrative provisions of the Member States relating to construction products(**a**);

(**a**) O.J. No. L40, 11.2.89, p. 12.

"EEA State" means a State which is a contracting party to the agreement on the European Economic Area signed at Oporto on 2nd May 1992(**a**) as adjusted by the Protocol signed at Brussels on 17th March 1993(**b**);

"European technical approval" means a favourable technical assessment of the fitness for use of a construction product for an intended use, issued for the purposes of the Directive by a body authorised by an EEA State to issue European technical approvals for those purposes and notified by that body to the European Commission; and

"harmonised standard" means a standard established as mentioned in the Directive by the European standards organisation on the basis of a mandate given by the European Commission and published by the Commission in the Official Journal of the European Communities.

(2) Subject to paragraph (3), a water undertaker shall not apply any substance or product to, or introduce any substance or product into, water which is to be supplied for regulation 4(1) purposes unless one of the requirements of paragraph (4) is satisfied.

(3) A substance or product which, at the time of its application or introduction, bears an appropriate CE marking in accordance with the Directive, or conforms to—

(a) an appropriate harmonised standard or European technical approval; or

(b) an appropriate British Standard or some other national standard of an EEA State which provides an equivalent level of protection and performance,

may be applied or introduced, notwithstanding that none of the requirements of paragraph (4) is satisfied; but any such application or introduction shall be subject to—

(i) such national conditions of use restricting the dosing concentration as are for the time being in force in relation to such substances and products pursuant to a determination of the Secretary of State by an instrument in writing; and

(ii) such other requirements, within the meaning of Council Directive 98/34/EC, as amended(**c**) (which lays down a procedure for the provision of information in the field of technical standards and regulations and of rules on information society services), in relation to such substances and products, as have been communicated to the Commission in the form of a draft technical regulation in accordance with Article 8 of that Directive, and whose adoption by a Member State has also been communicated to the Commission.

(4) The requirements of this paragraph are—

(a) that the Secretary of State has for the time being approved the application or introduction of that substance or product and it is applied or introduced in accordance with any conditions attaching to that approval;

(b) that the Secretary of State is satisfied that the substance or product either alone or in combination with any other substance or product in the water is unlikely to affect adversely the quality of the water supplied;

(c) that the substance or product is to be applied or introduced solely for the purposes of testing or research, and the water undertaker has given to the Secretary of State not less than 3 months' notice in writing of its intention so to apply or introduce the substance or product.

(5) An application for such an approval as is mentioned in paragraph (4)(a) may be made by any person.

(6) If the Secretary of State decides to issue an approval under paragraph (4)(a), he may include in the approval such conditions as he considers appropriate and, subject to paragraph (10), may at any time revoke or vary any approval he has previously given.

(7) Where substances or products are applied or introduced in any case in which the requirement mentioned in paragraph (4)(c) is satisfied, their application or introduction shall be discontinued within 12 months of the date on which they were first applied or introduced or, if the Secretary of State by notice given in writing to the water undertaker so directs, within such other period (whether longer or shorter) as may be specified in the notice.

(**a**) Cmnd 2073.
(**b**) Cmnd 2183.
(**c**) O.J. No. L 204, 21.7.98, p. 37, amended by Council Directive 98/48/EC (O.J. No. L217, 5.8.98, p. 18).

(8) The Secretary of State may, by notice given in writing to any water undertaker, prohibit it from applying to, or introducing into, water intended to be supplied for regulation 4(1) purposes any substance or product which the undertaker would otherwise be authorised to apply or introduce by virtue of—

(a) paragraph (2) and sub-paragraph (b) or (c) of paragraph (4); or

(b) paragraph (3).

(9) A prohibition under paragraph (8) may be without limitation as to time or for such period as is specified in the notice.

(10) The Secretary of State may—

(a) revoke by an instrument in writing any approval given by him under paragraph (4)(a);

(b) modify any such approval by an instrument in writing by including conditions or varying existing conditions;

(c) give any such notice as is mentioned in paragraph (8),

but, unless he is satisfied that it is necessary to do so in the interests of public health without notice, shall not do any of those things without giving all such persons as are, in his opinion, likely to be affected by the revocation or modification of the approval or by the giving of the notice at least 6 months' notice in writing of his intention.

(11) Notice shall be given forthwith by the Secretary of State to all persons likely to be affected by the making of such an instrument as is mentioned in paragraph (10)(a) or (b).

(12) At least once in each year beginning with the year 2004, the Secretary of State shall issue a list of all the substances and products in relation to which—

(a) an approval under paragraph (4)(a) has been granted or refused;

(b) such an approval has been revoked or modified;

(c) a notice has been given under paragraph (8),

with particulars of the action taken.

Use of processes

32.—(1) The Secretary of State may at any time by notice in writing given to a water undertaker require it to make an application to him for approval of the use of any process; and may prohibit it for such period as may be specified in the notice from using any such process in connection with the supply by it of water for regulation 4(1) purposes.

(2) The Secretary of State may refuse the application or impose on any approval given for the purposes of this regulation such conditions as he thinks fit and, subject to paragraph (3), may at any time by notice in writing to the water undertaker revoke an approval so given or modify or revoke any condition imposed by virtue of this paragraph.

(3) Subject to paragraph (4), the Secretary of State shall not—

(a) revoke any approval given for the purposes of this regulation;

(b) modify any condition imposed by virtue of paragraph (2); or

(c) prohibit a water undertaker from using any process,

unless he has given to the water undertaker at least 6 months' notice in writing of his intention to revoke, modify or prohibit, as the case may be.

(4) Paragraph (3) shall not apply in any case in which the Secretary of State is of the opinion that the immediate revocation, modification or prohibition is necessary in the interests of public health.

(5) Paragraph (12) of regulation 31 shall apply for the purposes of this regulation as if—

(a) for the reference to a substance or product there were substituted a reference to a process; and

(b) for the reference to paragraph (4)(a) and paragraph (8) there were substituted a reference to this regulation and paragraph (1) of this regulation respectively.

Offences

33.—(1) A water undertaker which contravenes regulation 28(9) or regulation 29(2) or (4) shall be guilty of an offence and liable—

(a) on summary conviction, to a fine not exceeding the statutory maximum;

(b) on conviction on indictment, to a fine.

(2) In any proceedings under paragraph (1) above for contravention of regulation 29(2), a copy of a certificate given pursuant to paragraph (15) of that regulation shall be admissible in evidence as to the number of cryptosporidium oocysts per 10 litres of water.

(3) A water undertaker which applies or introduces any substance or product in contravention of regulation 31(2) or a notice given under regulation 31(8), or uses any process in contravention of a prohibition imposed under regulation 32(1) or without complying with a condition imposed by virtue of regulation 32(2) shall be guilty of an offence and liable—

(a) on summary conviction, to a fine not exceeding the statutory maximum;

(b) on conviction on indictment, to a fine.

(4) In any proceedings against a water undertaker for an offence under paragraph (1) above it shall be a defence for that undertaker to show that it took all reasonable steps and exercised all due diligence to avoid the commission of the offence.

(5) If any person, in certifying the results of an analysis pursuant to regulation 29(15) or furnishing any information or making any application under regulation 31 or 32, makes any statement which he knows to be false in a material particular, or recklessly makes any statement which is false in a material particular, he shall be guilty of an offence and liable—

(a) on summary conviction, to a fine not exceeding the statutory maximum;

(b) on conviction on indictment, to a fine.

(6) Proceedings for an offence under paragraph (5) shall not be instituted except by or with the consent of the Secretary of State or the Director of Public Prosecutions.

PART VIII

RECORDS AND INFORMATION

Maintenance of records

34.—(1) A water undertaker shall prepare and maintain, in respect of each of its water supply zones, a record containing—

(a) the name of the zone;

(b) the name of every water treatment works, service reservoir and other supply point from which water is supplied to premises within the zone;

(c) an estimate of the population of the zone;

(d) particulars of any departure authorised under Part VI of these Regulations which applies to water supplied in the zone;

(e) particulars of the action taken or required to be taken by the undertaker to comply with—

(i) any enforcement order made under section 18 of the Act;

(ii) any departure authorised under Part VI; and

(iii) any notice under regulation 19(4);

(f) particulars of the result of any analysis of samples taken in accordance with Part IV of these Regulations or any of regulations 12 to 14, 28 and 29; and

(g) such other particulars as the undertaker may determine.

(2) An undertaker shall make—

(a) initial entries in the record in respect of the matters mentioned in paragraph (1)(a) to (d) and (e)(ii) before 1st March 2004;

(b) entries in respect of the matters mentioned in paragraph (1)(e)(i) and (iii) within 28 days of the date of the order and notice respectively; and

(c) entries relating to the results of the analysis of samples within 28 days of the day on which the result is first known to the undertaker.

(3) Without prejudice to paragraph (2), the undertaker shall at least once in each year review and bring up to date the record required to be kept by paragraph (1).

(4) Nothing in this regulation shall require an undertaker to retain a record—

(a) of information mentioned in any of sub-paragraphs (a), (b) and (f) of paragraph (1) at any time more than 30 years after the date on which the information was first entered in the record;

(b) of information mentioned in any other sub-paragraph of that paragraph at any time more than five years after the date on which the information was first entered in the record.

Provision of information

35.—(1) A water undertaker shall make available for inspection by the public at all reasonable hours and free of charge at at least one of its offices any record maintained by it in accordance with regulation 34.

(2) A water undertaker shall afford to any person facilities to take or obtain a copy of any part of a record maintained in accordance with regulation 34—

(a) in the case of information relating to that zone, free of charge if the person receives a supply of water in the zone;

(b) in any other case, on payment of such reasonable charge as the undertaker may determine.

(3) A water undertaker shall include in or append to at least one of the accounts sent to each customer in any year a statement informing them—

(a) that records of water quality may be inspected by the public free of charge; and

(b) of the address, telephone number and hours of opening of the offices at which an inspection can be made.

(4) A water undertaker shall, not later than 30th June 2005 and not later than 30th June in each year thereafter, supply to each local authority to any part of whose area the water undertaker supplied water in the preceding year, information concerning the general quality of water supplied during that year to premises in the authority's area, and—

(a) in respect of each treatment works from which water was so supplied, the particulars referred to in paragraph (5);

(b) in respect of each service reservoir, and every other supply point (other than a treatment works), from which water was so supplied, the particulars referred to in paragraph (6);

(c) in respect of—

(i) each water supply zone of which any part is within the authority's area, and

(ii) each parameter and residual disinfectant,

the particulars referred to in paragraph (7); and

(d) information as to the action taken by the undertaker in that year to comply with—

(i) any enforcement order made under section 18 of the Act;

(ii) any departure authorised under Part VI; and

(iii) any notice under regulation 19(4).

(5) The particulars referred to in this paragraph are—

(a) the names of the water supply zones supplied from the works during the preceding year;

(b) the result of any analysis of samples taken in the preceding year in accordance with Part IV of these Regulations or any of regulations 12, 13 and 29;

(c) in relation to those samples and each parameter other than an indicator parameter—

(i) the number and percentage of samples which contravened the prescribed concentration or value; and

(ii) if at the time that samples were taken a departure had been authorised in respect of that parameter, the number and percentage of samples which exceeded the concentration or value specified in the authorisation;

(d) in respect of each indicator parameter, the number and percentage of the samples taken in the preceding year which did not meet the specification for that parameter;

(e) in respect of cryptosporidium and each parameter other than an indicator parameter, the minimum, mean and maximum concentrations; and

(f) in respect of residual disinfectant and each indicator parameter, the minimum, mean and maximum concentrations or values or, where a state is specified in relation to any such parameter, a commentary on its state.

(6) The particulars referred to in this paragraph are—

(a) the names of the water supply zones supplied from the service reservoir or, as the case may be, the supply point, during the preceding year;

(b) the result of any analysis of samples taken in the preceding year in accordance with Part IV of these Regulations, regulation 12 or regulation 14;

(c) in relation to those samples and each parameter other than an indicator parameter—

(i) the number and percentage of samples which contravened the prescribed concentration or value; and

(ii) if at the time that samples were taken a departure had been authorised in respect of that parameter, the number and percentage of samples which exceeded the concentration or value specified in the authorisation;

(d) in respect of each indicator parameter, the number and percentage of the samples taken in the preceding year which did not meet the specification for that parameter;

(e) in respect of each parameter other than an indicator parameter, the minimum, mean and maximum concentrations; and

(f) in respect of residual disinfectant and each indicator parameter, the minimum, mean and maximum concentrations or values or, where a state is specified in relation to any such parameter, a commentary on the state.

(7) The particulars referred to in this paragraph are—

(a) the number of samples taken in the preceding year;

(b) the result of any analysis of samples taken in the preceding year in accordance with Part IV of these Regulations;

(c) in relation to those samples and each parameter other than an indicator parameter—

(i) the number and percentage of samples which contravened the prescribed concentration or value; and

(ii) if at the time that samples were taken a departure had been authorised in respect of that parameter, the number and percentage of samples which exceeded the concentration or value specified in the authorisation;

(d) in respect of each indicator parameter, the number and percentage of the samples taken in the preceding year which did not meet the specification for that parameter;

(e) in respect of each parameter other than an indicator parameter, the minimum, mean and maximum concentrations; and

(f) in respect of residual disinfectant and each indicator parameter, the minimum, mean and maximum concentrations or values or, where a state is specified in relation to any such parameter, a commentary on the state.

(8) A water undertaker shall notify—

(a) the appropriate local authority,

(b) the appropriate health authority; and

(c) the relevant customer services committee,

as soon as may be after the occurrence of any event which, by reason of its effect or likely effect on the water supplied by it, gives rise or is likely to give rise to a significant risk to the health of persons residing in the authority's area.

(9) A water undertaker shall send to the Secretary of State a copy of every notification given under paragraph (8).

(10) Where an authority have received a notification under paragraph (8), they may require the water undertaker to provide them with such information relating to the event and its consequences as they may reasonably require.

Publication of information

36.—(1) A water undertaker shall, not later than 30th June 2005 and not later than 30th June in each year thereafter, publish a report relating to the preceding year containing—

(a) a statement of the number of treatment works, service reservoirs and other supply points from which it supplied water during any part of the year;

(b) a statement of the number of its water supply zones for the year;

(c) in respect of water supplied from its treatment works, the particulars referred to in paragraph (4);

(d) in respect of its service reservoirs and other supply points (other than treatment works), the particulars referred to in paragraph (5);

(e) in respect of its water supply zones, the particulars referred to in paragraph (6);

(f) a statement of the action taken by the undertaker during the year to comply with—

(i) any enforcement order made under section 18 of the Act;

(ii) any departure authorised under Part VI; and

(iii) any notice under regulation 19(4);

(g) a statement that any person may, free of charge, inspect the records of water quality kept by the water undertaker in accordance with regulation 34; and

(h) particulars of the times and places at which such inspection may be made.

(2) A report under paragraph (1) may include such other information as the water undertaker thinks fit.

(3) At the same time as it publishes a report in accordance with paragraph (1) the water undertaker shall send a copy of it to every local authority within whose area the water undertaker supplied water in the preceding year.

(4) The particulars referred to in this paragraph are—

(a) the total number of samples taken from all of the water undertaker's treatment works in the preceding year in respect of cryptosporidium, residual disinfectant and each parameter;

(b) in relation to those samples and each parameter other than an indicator parameter—

(i) the number and percentage of samples which contravened the prescribed concentration or value; and

(ii) if at the time that samples were taken a departure had been authorised in respect of that parameter, the number and percentage of samples which exceeded the concentration or value specified in the authorisation;

(c) the number and percentage of treatment works at which samples of the descriptions mentioned in paragraphs (i) and (ii) of sub-paragraph (b) were produced;

(d) in relation to the samples mentioned in sub-paragraph (a) and each indicator parameter, the number and percentage of the samples which did not meet the specification for that parameter; and

(e) the number and percentage of treatment works at which samples of the description mentioned in sub-paragraph (d) were produced.

(5) The particulars referred to in this paragraph are—

(a) the total number of samples taken from all of the water undertaker's service reservoirs and other supply points (other than treatment works), in the preceding year in respect of residual disinfectant and each parameter;

(b) in relation to those samples—

(i) the number and percentage which contravened the prescribed concentration or value; and

(ii) if at the time that they were taken a departure had been authorised, the number and percentage which exceeded the concentration or value specified in the authorisation;

(c) the number and percentage of service reservoirs, and other supply points (other than treatment works), at which samples of the descriptions mentioned in paragraphs (i) and (ii) of sub-paragraph (b) were produced;

(d) in relation to the samples mentioned in sub-paragraph (a) and each indicator parameter, the number and percentage of the samples which did not meet the specification for that parameter; and

(e) the number and percentage of service reservoirs, and other supply points (other than treatment works), at which samples of the description mentioned in sub-paragraph (d) were produced.

(6) The particulars referred to in this paragraph are—

(a) the total number of samples taken from all of the water undertaker's water supply zones in the preceding year in respect of residual disinfectant and each parameter;

(b) in relation to those samples and each parameter other than an indicator parameter—

(i) the number and percentage of samples which contravened the prescribed concentration or value; and

(ii) if at the time that samples were taken a departure had been authorised in respect of that parameter, the number and percentage of samples which exceeded the concentration or value specified in the authorisation;

(c) the number and percentage of water supply zones at which samples of the descriptions mentioned in paragraphs (i) and (ii) of sub-paragraph (b) were produced;

(d) in relation to the samples mentioned in sub-paragraph (a) and each indicator parameter, the number and percentage of the samples which did not meet the specification for that parameter; and

(e) the number and percentage of water supply zones at which samples of the description mentioned in sub-paragraph (d) were produced.

PART IX

FUNCTIONS OF LOCAL AUTHORITIES IN RELATION TO WATER QUALITY

Application and interpretation

37.—(1) This Part applies to the performance by a local authority of their duty under section 77(1) of the Act(**a**) insofar as that duty relates to water supplies which are not private supplies.

(2) In this Part "relevant water undertaker", in relation to a local authority, means a water undertaker any of whose supply zones include an area which is situated within the area of that authority.

Duties of local authorities: supplementary provision

38.—(1) In performing their duty under section 77(1) of the Act (general functions of local authorities in relation to water quality), a local authority—

(a) shall make such arrangements with the relevant water undertaker as will secure that the authority is notified as mentioned in regulation 35(8); and

(b) may take, or cause to be taken, and analyse, or cause to be analysed, by a person designated by them in writing, such samples of the water supplied to premises in their area as they may reasonably require.

(2) Regulation 16 shall apply to samples taken by virtue of paragraph (1) as it applies to samples taken for the purposes of Parts IV and V of these Regulations; but with the following modifications—

(a) in paragraph (1), for the words "A water undertaker" there shall be substituted the words "A local authority"; and

(b) in paragraph (2)(e), after the words "the undertaker" there shall be inserted the words "or the authority".

(**a**) As to the application of section 77(1) to the councils of counties in which there are no district councils *see* regulation 5(7) of S.I. 1994/867 as substituted by S.I. 1996/611.

PART X

ENFORCEMENT

Contraventions by water undertakers

39. Any duty or requirement imposed by Parts IV to VIII of these Regulations on a water undertaker shall be enforceable under section 18 of the Act by the Secretary of State or the Director, whether or not it constitutes an offence.

PART XI

AMENDMENT AND REVOCATION OF REGULATIONS AND SAVING AND TRANSITIONAL PROVISION

Amendment of the Water Supply (Water Quality) Regulations 1989

40. The 1989 Regulations shall be amended, with effect from 1st January 2001, in accordance with Schedule 5.

Transitional provision: programmes of work

41.—(1) Every water undertaker which intends to supply water, on and after 25th December 2003, for regulation 4(1) purposes shall, not later than 31st March 2001, submit to the Secretary of State for his approval a programme of work designed to secure, so far as reasonably practicable—

(a) that on the coming into force of Part III of these Regulations, the supply of water for those purposes fully satisfies the requirements of that Part; and

(b) that on and after 25th December 2013, the supply of water for those purposes will fully satisfy the revised requirements of that Part in relation to the lead parameter (item 15 in Table B),

and that, accordingly, section 68 (duties of water undertakers with respect to water quality) of the Act is complied with.

(2) Programmes of work shall be drawn up in accordance with the provisions of Schedule 6.

(3) The Secretary of State may approve a programme of work with or without modification.

(4) If a water undertaker—

(a) fails to draw up a programme of work; or

(b) draws up such a programme otherwise than in accordance with Schedule 6; or

(c) draws up such a programme that is unsatisfactory in any other respect,

the Secretary of State may draw up a programme of work and any such programme shall be treated for the purposes of paragraphs (5) and (6) as a programme of work drawn up by the water undertaker and approved by the Secretary of State.

(5) Whenever it comes to the attention of a water undertaker that the steps to be taken in accordance with a programme of work submitted to, or approved by, the Secretary of State, or treated as so approved, are insufficient to secure that the requirements of paragraph (1)(a) and (b) are met, it shall notify the Secretary of State of the additional steps to be taken to secure that those requirements are met.

(6) The Secretary of State may at any time, and whether or not on the application of a water undertaker, modify any programme of work where he is of the opinion that such modification is required to secure that the requirements of paragraph (1)(a) and (b) are met.

(7) It shall be the duty of each water undertaker—

(a) to take the steps for the time being specified in the programme of work approved or treated as approved in relation to its area of supply;

(b) to take those steps in accordance with the timetable so specified; and

(c) to submit reports to the Secretary of State at the times or within the periods specified.

(8) The duties imposed by paragraph (7) shall be enforceable under section 18 of the Act by the Secretary of State.

Transitional provision: authorisations

42.—(1) A water undertaker which—

(a) intends to supply water, on and after 25th December 2003, for regulation 4(1) purposes; and

(b) has reason to believe that water so supplied will not satisfy the requirements of Part III of these Regulations,

may apply to the Secretary of State for an authorisation under this regulation.

(2) An application under paragraph (1) shall be made not later than 25th September 2003.

(3) For the purpose of making and determining applications under paragraph (1) and publicising authorisations under this regulation, it shall be assumed—

(a) that regulations 4 and 20 to 23 of these Regulations, and so much of any other provision of these Regulations as relates to those regulations (in so far as not already in force), were in force at the material time; and

(b) that references in any provision specified or referred to in sub-paragraph (a) to an authorisation under regulation 20 (in whatever terms) were references to an authorisation under this regulation.

(4) On and after 25th December 2003, an authorisation under this regulation shall have effect for the purposes of these Regulations as an authorisation under regulation 20.

Revocation of Regulations and savings

43.—(1) Subject to paragraph (4), the Water Supply (Water Quality) (Amendment) Regulations 1999(**a**) and the following provisions of the 1989 Regulations shall be revoked—

regulations 23A and 23B,

so much of regulation 28 as relates to regulations 23A and 23B, and

in regulation 29(1)(f), the words "or 23B".

(2) Subject to paragraph (4), on 25th December 2003—

(a) Parts II and III of the 1989 Regulations,

(b) so much of the Water Supply (Water Quality) (Amendment) Regulations 1989(**b**) and the Water Supply (Water Quality) (Amendment) Regulations 1991(**c**) as relates to those Parts, and

(c) regulation 22 of the Private Water Supplies Regulations 1991(**d**),

shall be revoked.

(3) Subject to paragraphs (4) and (5), on 1st January 2004—

(a) the 1989 Regulations (in so far as not already revoked),

(b) the Water Supply (Water Quality) (Amendment) Regulations 1991 (in so far as not already revoked),

(c) regulation 8(1) of the Surface Waters (Abstraction for Drinking Water) (Classification) Regulations 1996(**e**), and

(d) regulations 40 to 42 of, and Schedule 5 and 6 to, these Regulations,

shall be revoked.

(4) Nothing in paragraphs (1) to (3) revokes any of the provisions referred to in those paragraphs so far as they relate—

(a) to water undertakers whose area is wholly or mainly in Wales; or

(b) to local authorities in Wales as regards the discharge of functions in relation to those undertakers.

(**a**) S.I. 1999/1524.
(**b**) S.I. 1989/1384.
(**c**) S.I. 1991/1837.
(**d**) S.I. 1991/2790, to which there are amendments not relevant to these Regulations.
(**e**) S.I. 1996/3001.

(5) Nothing in paragraph (3) shall affect any obligation of a water undertaker under the 1989 Regulations to compile and retain records, make information available and produce reports in respect of years ending on or before 31st December 2003.

Signed by authority of the Secretary of State
for the Environment, Transport and the Regions

Michael Meacher
Minister of State,
4th December 2000 Department of the Environment, Transport and the Regions

SCHEDULE 1

regulations 2 and 4

PRESCRIBED CONCENTRATIONS AND VALUES

TABLE A

MICROBIOLOGICAL PARAMETERS

Part I: Directive requirements

Item	*Parameters*	*Concentration or Value (maximum)*	*Units of Measurement*	*Point of compliance*
1.	Enterococci	0	number/100ml	Consumers' taps
2.	*Escherichia coli (E. coli)*	0	number/100ml	Consumers' taps

Part II: National requirements

Item	*Parameters*	*Concentration or Value (maximum)*	*Units of Measurement*	*Point of compliance*
1.	Coliform bacteria	0	number/100ml	Service reservoirs* and water treatment works
2.	*Escherichia coli (E. coli)*	0	number/100ml	Service reservoirs and water treatment works

Note: *Compliance required as to 95% of samples from each service reservoir (regulation 4(6)).

TABLE B

CHEMICAL PARAMETERS

Part I: Directive requirements

Item	*Parameters*	*Concentration or Value (maximum)*	*Units of Measurement*	*Point of compliance*
1.	Acrylamide	0.10	µg/l	**(i)**
2.	Antimony	5.0	µgSb/l	Consumers' taps
3.	Arsenic	10	µgAs/l	Consumers' taps
4.	Benzene	1.0	µg/l	Consumers' taps
5.	Benzo(a)pyrene	0.010	µg/l	Consumers' taps
6.	Boron	1.0	mgB/l	Consumers' taps
7.	Bromate	10	µgBrO_3/l	Consumers' taps
8.	Cadmium	5.0	µgCd/l	Consumers' taps
9.	Chromium	50	µgCr/l	Consumers' taps
10.	Copper**(ii)**	2.0	mgCu/l	Consumers' taps
11.	Cyanide	50	µgCN/l	Consumers' taps
12.	1, 2 dichloroethane	3.0	µg/l	Consumers' taps
13.	Epichlorohydrin	0.10	µg/l	**(i)**
14.	Fluoride	1.5	mgF/l	Consumers' taps
15.	Lead **(ii)**	(a) 25, from 25th December 2003 until immediately before 25th December 2013	µgPb/l	Consumers' taps
		(b) 10, on and after 25th December 2013	µgPb/l	Consumers' taps
16.	Mercury	1.0	µgHg/l	Consumers' taps
17.	Nickel **(ii)**	20	µgNi/l	Consumers' taps
18.	Nitrate **(iii)**	50	mgNO_3/l	Consumers' taps
19.	Nitrite **(iii)**	0.50	mgNO_2/l	Consumers' taps
		0.10		Treatment works
20.	Pesticides **(iv)(v)**			
	Aldrin Dieldrin Heptachlor Heptachlor epoxide	0.030	µg/l	Consumers' taps

Item	*Parameters*	*Concentration or Value (maximum)*	*Units of Measurement*	*Point of compliance*
	other pesticides	0.10	µg/l	Consumers' taps
21.	Pesticides: Total **(vi)**	0.50	µg/l	Consumers' taps
22.	Polycyclic aromatic hydrocarbons **(vii)**	0.10	µg/l	Consumers' taps
23.	Selenium	10	µgSe/l	Consumers' taps
24.	Tetrachloroethene and Trichloroethene **(viii)**	10	µg/l	Consumers' taps
25.	Trihalomethanes: Total **(ix)**	100	µg/l	Consumers' taps
26.	Vinyl chloride	0.50	µg/l	**(i)**

Notes:

(i) The parametric value refers to the residual monomer concentration in the water as calculated according to specifications of the maximum release from the corresponding polymer in contact with the water. This is controlled by product specification.

(ii) *See also* regulation 6(6).

(iii) *See also* regulation 4(2)(d).

(iv) *See* the definition of "pesticides and related products" in regulation 2.

(v) The parametric value applies to each individual pesticide.

(vi) "Pesticides: Total" means the sum of the concentrations of the individual pesticides detected and quantified in the monitoring procedure.

(vii) The specified compounds are:

— benzo(b)fluoranthene

— benzo(k)fluoranthene

— benzo(ghi)perylene

— indeno(1,2,3-cd)pyrene.

The parametric value applies to the sum of the concentrations of the individual compounds detected and quantified in the monitoring process.

(viii) The parametric value applies to the sum of the concentrations of the individual compounds detected and quantified in the monitoring process.

(ix) The specified compounds are:

— chloroform

— bromoform

— dibromochloromethane

— bromodichloromethane.

The parametric value applies to the sum of the concentrations of the individual compounds detected and quantified in the monitoring process.

Part II: National requirements

Item	*Parameters*	*Concentration or Value (maximum unless otherwise stated)*	*Units of Measurement*	*Point of compliance*
1.	Aluminium	200	µgAl/l	Consumers' taps
2.	Colour	20	mg/l Pt/Co	Consumers' taps
3.	Hydrogen ion	10.0	pH value	Consumers' taps
		6.5 (minimum)	pH value	
4.	Iron	200	µgFe/l	Consumers' taps
5.	Manganese	50	µgMn/l	Consumers' taps
6.	Odour	3 at 25°C	Dilution number	Consumers' taps
7.	Sodium	200	mgNa/l	Consumers' taps
8.	Taste	3 at 25°C	Dilution number	Consumers' taps
9.	Tetrachloromethane	3	µg/l	Consumers' taps
10.	Turbidity	4	NTU	Consumers' taps

SCHEDULE 2

regulations 2 and 4

INDICATOR PARAMETERS

Item	*Parameters*	*Specification Concentration or Value (maximum) or State*	*Units of Measurement*	*Point of monitoring*
1.	Ammonium	0.50	$mgNH_4/l$	Consumers' taps
2.	Chloride **(i)**	250	mgCl/l	Supply point*
3.	*Clostridium perfringens* (including spores)	0	Number/100ml	Supply point*
4.	Coliform bacteria	0	Number/100ml	Consumers' taps
5.	Colony counts	No abnormal change	Number/1ml at 22°C Number/1ml at 37°C	Consumers' taps, service reservoirs and treatment works
6.	Conductivity **(i)**	2500	µS/cm at 20°C	Supply point*
7.	Sulphate **(i)**	250	$mgSO_4/l$	Supply point*
8.	Total indicative dose (for radioactivity) **(ii)**	0.10	mSv/year	Supply point*
9.	Total organic carbon (TOC)	No abnormal change	mgC/l	Supply point*
10.	Tritium (for radioactivity)	100	Bq/l	Supply point*
11.	Turbidity	1	NTU	Treatment works

Notes:

(i) The water should not be aggressive.

(ii) Excluding tritium, potassium − 40, radon and radon decay products.

* May be monitored from samples of water leaving treatment works or other supply point, as no significant change during distribution.

MONITORING

TABLE 1

PARAMETERS AND CIRCUMSTANCES FOR CHECK MONITORING

(1) *Item*	(2) *Parameter*	(3) *Circumstances*
1.	Aluminium	When used as flocculant or where the water originates from, or is influenced by, surface waters
2.	Ammonium	
3.	*Clostridium perfringens* (including spores)	Where the water originates from, or is influenced by, surface waters
4.	Coliform bacteria	
5.	Colour	
6.	Conductivity	
7.	*Escherichia coli (E. coli)*	
8.	Hydrogen ion concentration	
9.	Iron	When used as flocculant or where the water originates from, or is influenced by, surface waters
10.	Manganese	Where the water originates from, or is influenced by, surface waters
11.	Nitrate	When chloramination is practised
12.	Nitrite	When chloramination is practised
13.	Odour	
14.	Taste	
15.	Turbidity	

TABLE 2

ANNUAL SAMPLING FREQUENCIES: WATER SUPPLY ZONES

(1) *Substances and parameters subject to check monitoring*	(2) *Estimated population of water supply zone*	(3) *Reduced*	(4) *Standard*
E. coli	< 100		4
Coliform bacteria	≥ 100		12 per 5,000 population (**i**)
Residual disinfectant			
Aluminium			
Ammonium			
Clostridium perfringens			
Colony counts	< 100	1	2
Colour	100–4,999	2	4
Conductivity*	5,000–9,999	6	12
Hydrogen ion	10,000–29,999	12	24
Iron	30,000–49,999	18	36
Manganese	50,000–79,999	26	52
Nitrate (**ii**)	80,000–99,999	38	76
Nitrite (**ii**)			
Odour			
Taste			
Turbidity			
Parameters subject to audit monitoring			
Aluminium			
Antimony			
Arsenic			
Benzene*	< 100		1
Benzo(a)pyrene	100–4,999		4
Boron*	5,000–99,999		8
Bromate (iii)			
Cadmium			
Chromium			
Copper			

(1) *Parameters subject to audit monitoring*	(2) *Estimated population of water supply zone*	(3) *Reduced*	(4) *Standard*
Cyanide*			
1,2 dichloroethane*			
Enterococci			
Fluoride*			
Iron			
Lead			
Manganese			
Mercury*			
Nickel			
Nitrate **(ii)**			
Nitrite **(ii)**			
Pesticides and related products*	< 100		1
	100–4,999		4
Polycyclic aromatic hydrocarbons	5,000–99,999		8
Selenium			
Sodium			
Trichloroethene/ Tetrachloroethene*			
Trihalomethanes			
Chloride*			
Sulphate*			
Total organic carbon*			
Tritium*			
Gross alpha* (**iv**)			
Gross beta* (**iv**)			

Notes:

* Sampling for these parameters may be within water supply zones or at supply points as specified in Table 3, subject to notes (**ii**) and (**iii**) below.

(**i**) Where the population is not an exact multiple of 5,000, the population figure should be rounded up to the nearest multiple of 5,000.

(**ii**) Check monitoring in water supply zones is required only where chloramination is practised. In other circumstances audit monitoring is required.

(**iii**) Audit monitoring in water supply zones is required only where sodium hypochlorite is added after water has left the treatment works. In other circumstances, audit monitoring is required at supply points.

(**iv**) To monitor for total indicative dose (for radioactivity).

TABLE 3

ANNUAL SAMPLING FREQUENCIES: TREATMENT WORKS OR SUPPLY POINTS*

(1) *Item*	(2) *Substances and parameters*	(3) *Volume of water supplied m^3/d*	(4) *Reduced*	(5) *Standard*
1.	*E. coli*	<20		4
2.	Coliform bacteria	20–1,999	12	52
3.	Colony counts	2,000–5,999	52	104
4.	Nitrite **(ii)**	6,000–11,999	104	208
5.	Residual disinfectant	>12,000	104	365
6.	Turbidity			
Subject to check monitoring				
7.	*Clostridium perfringens* **(i)**	<20		2
		20–999	2	4
8.	Conductivity	1,000–1,999	6	12
		2,000–5,999	12	24
		6,000–9,999	18	36
		10,000–15,999	26	52
		16,000–32,999	52	104
		33,000–49,999	78	156
		50,000–67,999	104	208
		68,000–84,999	130	260
		85,000–101,999	156	312
		102,000–119,999	183	365
		120,000–241,999	365	730
		242,000–484,999	730	1,460
		485,000–728,999	1,095	2,190
Subject to audit monitoring				
9.	Benzene			
10.	Boron			
11.	Bromate **(iii)**			
12.	Cyanide			
13.	1,2 dichloroethane			
14.	Fluoride			
15.	Mercury	<20		1
16.	Nitrite **(ii)**	20–999		4
17.	Pesticides and related products	1,000–49,999		8
		50,000–89,999		12
		90,000–299,999		24
		300,000–649,999		36
18.	Trichloroethene, Tetrachloroethene	≥650,000		48
19.	Tetrachloromethane			
20.	Chloride			
21.	Sulphate			
22.	Total organic carbon			
23.	Tritium			
24.	Gross alpha (**iv**)			
25.	Gross beta (**iv**)			

Notes:

* Sampling is at treatment works for the substances and parameters shown in column (1) of the Table as items 1 to 6 and at supply points for the other substances and parameters, subject to notes **(ii)** and **(iii)** below.

(**i**) Check monitoring is required only in respect of surface waters (see regulation 6(2) and Table 1 in Schedule 3).

(**ii**) Check monitoring at treatment works is required only when chloramination is practised. In other circumstances, audit monitoring is required.

(**iii**) Audit monitoring at supply points is required only where sodium hypochlorite is not added after water has left the treatment works. In other circumstances, audit monitoring is required in water supply zones.

(**iv**) To monitor for total indicative dose (for radioactivity).

SCHEDULE 4

regulation 16

ANALYTICAL METHODOLOGY

TABLE A1

PARAMETERS FOR WHICH, SUBJECT TO REGULATION 16(7), METHODS OF ANALYSIS ARE PRESCRIBED

(1) *Parameter*	(2) *Method*
Clostridium perfringens (including spores)	Membrane filtration followed by anaerobic incubation of the membrane on m-CP agar* at 44 ± 1°C for 21 ± 3 hours. Count opaque yellow colonies that turn pink or red after exposure to ammonium hydroxide vapours for 20 to 30 seconds.
Coliform bacteria	ISO 9308-1
Colony count 22°C-enumeration of culturable microorganisms	PrEN ISO 6222
Colony count 37°C-enumeration of culturable microoganisms	prEN ISO 6222
Enterococci	ISO 7899-2
Escherichia coli (E. coli)	ISO 9308-1

*The composition of m-CP agar is:

Basal medium

Tryptose	30.0g
Yeast extract	20.0g
Sucrose	5.0g
L-cysteine hydrochloride	1.0g
$MgSO_4 \cdot 7H_2O$	0.1g
Bromocresol purple	40.0mg
Agar	15.0g
Water	1,000.0ml

Dissolve the ingredients of the basal medium, adjust pH to 7.6 and autoclave at 121°C for 15 minutes. Allow the medium to cool and add:

D-cycloserine	400.0mg
Polymyxine-B sulphate	25.0mg
Indoxyl-β-D-glucoside	60.0mg
to be dissolved in 8ml sterile water before addition	
Filter-sterilised 0.5% phenolphthalein diphosphate solution	20.0ml
Filter-sterilised 4.5% $FeCl_3 \cdot 6H_2O$	2.0ml

TABLE A2

PARAMETERS IN RELATION TO WHICH METHODS OF ANALYSIS MUST SATISFY PRESCRIBED CHARACTERISTICS

(1) *Parameters*	(2) *Trueness % of prescribed concentration or value or specification*	(3) *Precision % of prescribed concentration or value or specification*	(4) *Limit of detection % of prescribed concentration or value or specification*
Aluminium	10	10	10
Ammonium	10	10	10
Antimony	25	25	25
Arsenic	10	10	10
Benzene	25	25	25
Benzo(a)pyrene	25	25	25
Boron	10	10	10
Bromate	25	25	25
Cadmium	10	10	10
Chloride	10	10	10
Chromium	10	10	10
Colour	10	10	10
Conductivity	10	10	10
Copper	10	10	10

(1) *Parameters*	(2) *Trueness % of prescribed concentration or value or specification*	(3) *Precision % of prescribed concentration or value or specification*	(4) *Limit of detection % of prescribed concentration or value or specification*
Cyanide (**i**)	10	10	10
1,2-dichloroethane	25	25	10
Fluoride	10	10	10
Iron	10	10	10
Lead	10	10	10
Manganese	10	10	10
Mercury	20	10	20
Nickel	10	10	10
Nitrate	10	10	10
Nitrite	10	10	10
Pesticides and related products (**ii**)	25	25	25
Polycyclic aromatic hydrocarbons (**iii**)	25	25	25
Selenium	10	10	10
Sodium	10	10	10
Sulphate	10	10	10
Tetrachloroethene (**iv**)	25	25	10
Tetrachloromethane	20	20	20
Trichloroethene (**iv**)	25	25	10
Trihalomethanes: Total (**iii**)	25	25	10
Turbidity (**v**)	10	10	10
Turbidity (**vi**)	25	25	25

Notes:

(**i**) The method of analysis should determine total cyanide in all forms.

(**ii**) The performance characteristics apply to each individual pesticide and will depend on the pesticide concerned.

(**iii**) The performance characteristics apply to the individual substances specified at 25% of the parametric value in Part I of Table B in Schedule 1.

(**iv**) The performance characteristics apply to the individual substances specified at 50% of the parametric value in Part I of Table B in Schedule 1.

(**v**) The performance characteristics apply to the prescribed value of 4 NTU.

(**vi**) The performance characteristics apply to the specification of 1 NTU for water leaving treatment works.

SCHEDULE 5 regulation 40

AMENDMENT OF THE WATER SUPPLY (WATER QUALITY) REGULATIONS 1989

The amendments to the 1989 Regulations referred to in regulation 40 are—

(a) after regulation 13, the insertion of the following regulation—

"Frequency of sampling for particular organisms and substances

13A.(1) Subject to paragraphs (5) and (6), in each of the years 2001, 2002 and 2003, a water undertaker shall take, or cause to be taken, from its sampling points or, as the case may be, its supply points, for analysis for testing against the concentrations and values specified in column (2) of Table 4A for the organisms and substances listed in column (1) of that Table, not less than the number of samples specified in paragraphs (2) and (3).

(2) In respect of supply points and the supply of a volume of water within a range shown in column (3) of that Table, the number is that shown in column (4) of that Table with the prefix "S" as applicable to a volume within that range.

(3) In respect of sampling points and the supply of water to an estimated population within a range shown in column (5) of that Table, the number is that shown in column (6) of that Table with the prefix "S" as applicable to a population within that range.

(4) In each of those years samples shall be taken at regular intervals throughout the year.

(5) Where—

(a) a programme of work has been approved or is treated as approved under regulation 41 (transitional provision: programmes of work) of the Water Supply (Water Quality) Regulations 2000; or has otherwise been agreed by the Secretary of State; and

(b) at least one of the steps required to be taken in accordance with that programme—

(i) relates to an organism or substance listed in column (1) of Table 4A; and

(ii) remains to be completed,

the number of samples to be taken in any period of twelve months beginning with the date on which the programme was approved, treated as approved, or agreed (as the case may be) and ending on the day on which the last of those steps is completed, for analysis for testing for that organism or substance, may be the number shown in column (4) or, as the case may be, column (6) of that Table with the prefix "R".

(6) Where analysis of the samples taken by a water undertaker in 2001 or 2002 in accordance with this regulation has established a concentration or value in respect of an organism or substance listed in column (1) of Table 4A that is significantly lower than the prescribed concentration or value, the number of samples to be taken in 2002 or 2003, respectively, for analysis for testing for that organism or substance, may be the number shown in column (4) or, as the case may be, column (6) of that Table with the prefix "R".";

(b) after regulation 20, the insertion of the following regulation—

"Additional testing for particular parameters

20A. The samples taken in accordance with regulation 13 shall additionally be tested against the concentrations specified in column (2) of Table 4B.";

(c) in regulation 21 (collection and analysis of samples)—

(i) in paragraph (2), the insertion, after "means", of "subject to paragraph (3)"; and

(ii) the addition, at the end, of the following—

"(3) In relation to each of the parameters and other substances listed in column (1) of Table 4B, paragraph (2)(d) shall have effect as if for sub-paragraph (iii) there were substituted the requirements of regulation 21A.";

(d) after regulation 21, the insertion of the following regulation—

"Method of analysis of samples for particular parameters and substances

21A. (1) The method of analysis used for testing for a parameter or other substance listed in column (1) of Table 4B against the concentrations in column (2) of that Table must be capable, at the time of use—

(a) of measuring concentrations with the trueness and precision specified in relation to that parameter or substance in columns (3) and (4) of Table 4B; and

(b) of detecting the parameter or substance at the limit of detection specified in relation to it in column (5) of that Table.

(2) For the purposes of paragraph (1)—

"limit of detection" is to be calculated as—

(a) three times the relative within batch standard deviation of a natural sample containing a low concentration of the parameter or substance; or

(b) five times the relative within batch standard deviation of a blank sample;

"precision" (the random error) is the standard deviation (within a batch and between batches) of the spread of results about the mean; and

"trueness" (the systematic error) is the difference between the mean value of a large number of repeated measurements and the true value.";

(e) in regulation 29(1)(f), after the words "Part IV of these Regulations", the insertion of ", other than regulation 13B,"; and

(f) the insertion, after Table 4 in Schedule 3, of the following Tables—

"TABLE 4A

SAMPLING FOR PARTICULAR ORGANISMS AND SUBSTANCES

(1)	(2)	(3)	(4)	(5)	(6)
Organism or substance	*Concentration or value and unit of measurement*	*Volume of water supplied m^3/d*	*Annual sampling frequency*	*Estimated population of water supply zone*	*Annual sampling frequency*
Benzene	1.0 µg/l				
Bromate	10 µgBr0$_3$/l	≤ 999	S2 or R1	≤ 4,999	S2 or R1
*Clostridium perfringens** (including spores)	0 Number/100ml	1,000 − 49,999	S4 or R1	5,000–50,000	S4 or R1
1,2 dichloroethane	3.0 µg/l	≥ 50,000	S8 or R2		
Enterococci	0 Number/100ml				
Nitrite	0.10 mgNO_2/l				

* where the water originates from, or is influenced by, surface waters

TABLE 4B

PARAMETERS AND SUBSTANCES IN RELATION TO WHICH, SUBJECT TO REGULATION 21A, METHODS OF ANALYSIS MUST SATISFY PRESCRIBED CHARACTERISTICS

(1) *Parameter or other substance*	(2) *Concentration and unit of measurement*	(3) *Trueness % of concentration*	(4) *Precision % of concentration*	(5) *Limit of detection % of concentration*
Antimony	5.0 µgSb/l	25	25	25
Arsenic	10 µgAs/l	10	10	10
Benzene	1.0 µg/l	25	25	25
Boron	1.0 mgB/l	10	10	10
Bromate	10 µgBrO_3/l	25	25	25
Copper	2.0 µgCu/l	10	10	10
1,2 dichloroethane	3.0 µg/l	25	25	10
Lead	25 µgPb/l	10	10	10
Nickel	20 µgNi/l	10	10	10
Nitrite (ex works)	0.1 mgNO_2/l	10	10	10
Tetrachloroethene*	10 µg/l	25	25	10
Trichloroethene*	10 µg/l	25	25	10

*Trueness, precision and limit of detection apply to the individual substances specified at 50% of the concentration in column (2).".

SCHEDULE 6

regulation 41

PROGRAMMES OF WORK

A water undertaker's programme of work shall—

(a) identify, by reference to the parameters set out in the Table below, those parameters in respect of which the requirements of regulation 41(1)(a) and (b) are unlikely to be satisfied unless steps are taken to secure that those requirements will be met;

(b) identify whether the requirement that the formula [nitrate]/50 + [nitrite]/3 ≤ 1, where the square brackets signify the concentrations in mg/l for nitrate (NO_3) and nitrite (NO_2), is unlikely to be satisfied;

(c) specify the steps that the water undertaker intends to take for the purpose of securing that the requirements of regulation 41(1)(a) and (b) are met;

(d) specify the date by which each of the steps specified in accordance with paragraph (c) is proposed to be completed; and

(e) specify the times at which, or the periods within which, reports will be made to the Secretary of State in relation to the taking and completion of the steps specified in accordance with paragraph (c).

TABLE

Enterococci	
Acrylamide	
Antimony	
Arsenic	
Benzene	
Benzo(a)pyrene	
Boron	
Bromate	
Copper	
1,2-dichloroethane	
Epichlorohydrin	
Lead	
Nickel	
Nitrite	
Polycyclic aromatic hydrocarbons	
Tetrachloroethene Trichloroethene	sum of concentrations
Trihalomethanes—Total	(sum of concentrations of chloroform, bromoform, dibromochloromethane and bromodichloromethane)
Vinyl chloride	

EXPLANATORY NOTE

(This note is not part of the Regulations)

These Regulations supplement Chapter III (Water Supply) of the Water Industry Act 1991 ("the 1991 Act"), amend, for a limited period, the Water Supply (Water Quality) Regulations 1989 ("the 1989 Regulations") and, on 1st January 2004, revoke and replace those Regulations. They are primarily concerned with the quality of water supplied in England for drinking, washing, cooking and food preparation, and for food production, and with arrangements for the publication of information about water quality.

The Regulations are directed at the achievement of the objective set out in Article 2 of Council Directive 98/83/EC (OJ No. L 330, 5.12.98, p.32) ("the 1998 Directive"), namely, to protect human health from the adverse effects of any contamination of water intended for human consumption by ensuring that it is wholesome and clean. In particular, effect is given in Part III of the Regulations to Articles 4 and 5 of the 1998 Directive which relate to the quality of water intended for human consumption and, in Part V, to Article 7 (monitoring) of that Directive.

Subject to the exceptions mentioned below, the Regulations come into force on 1st January 2004. Regulations 1 and 2 (which deal with commencement, application and interpretation), regulations 27 to 29 (which deal with cryptosporidium), so much of regulation 33 (which deals with offences) as relates to contraventions of regulation 29, regulation 40 (which introduces the amendments to the 1989 Regulations set out in Schedule 5) regulation 41 (a transitional provision requiring the submission of programmes of work) and paragraph (1) of regulation 43 (revoking parts of the 1989 Regulations) come into force on 1st January 2001.

Regulation 3 (which deals with water supply zones) and regulation 42 (a transitional provision enabling applications to be made for authorisations) come into force on 1st June 2003.

Regulation 4 (which prescribes new standards of wholesomeness), regulations 17 to 24 (which deal with sampling), paragraphs (4) and (5) of regulation 30 (which deals with lead pipes) and paragraph (2) of regulation 43 (which revokes provisions of the 1989 Regulations superseded by regulations 4 and 17 to 24) come into force on 25th December 2003, when the 1998 Directive takes effect.

Part I of the Regulations (regulations 1 and 2) defines terms that are used in the Regulations.

Part II (regulation 3) requires water undertakers to identify annually the areas ("water supply zones") that are to be relevant for a particular year for the purposes of the application of provisions of the Regulations. A water supply zone may not comprise an area in which the estimated population exceeds 100,000. Water undertakers may not alter the boundaries of water supply zones during the year.

Part III (regulation 4) prescribes standards of wholesomeness in respect of water that is supplied by water undertakers for cooking, drinking, food preparation and washing and other domestic purposes and to premises for food production purposes. These various purposes are referred to in the Regulations as "regulation 4(1) purposes". In particular, regulation 4 provides that water is to be regarded as wholesome if it contains concentrations or values in respect of various properties, elements, organisms and substances that do not contravene prescribed maximum and, in some cases, minimum concentrations or values. Some of the prescribed maximum and minimum concentrations and values are specified in regulation 4, but most are included in Tables A and B which appear in Schedule 1 to the Regulations. They include the values specified in Parts A and B of Annex 1 to the 1998 Directive. There are also specifications for indicator parameters in Schedule 2.

Part IV (regulations 5 to 10) provides for the monitoring of water supplies by reference to the analysis of samples. Regulation 5 defines two monitoring regimes; "audit" monitoring and "check" monitoring. Regulation 6 requires water undertakers to take a minimum number of samples each year in respect of a variety of properties, elements, organisms and substances. It also makes special provision for monitoring supplies from tankers. Regulation 7 requires water undertakers to select at random the consumers' taps from which samples are to be taken. Regulation 8 authorises the taking of samples from points other than consumers' taps ("supply points") and allows the Secretary of State to authorise other supply points. Regulation 9 deals with the number of samples to be taken. These are specified in Tables 1 and 2 in Schedule 3 to

the Regulations, and are not less than those specified in Annex II to the 1998 Directive. Regulation 10 requires samples to be taken where water undertakers have reason to believe that the quality of the water within their water supply zone has been adversely affected by the presence of certain elements, organisms or substances.

Part V (regulations 11 to 16) contains additional provisions relating to sampling. Regulations 13 and 14 require samples to be taken in respect of particular organisms and substances, at treatment works and at reservoirs which store treated water. Regulation 15 requires samples to be taken before water is supplied from new sources and from sources which have not recently been used. Regulation 16 prescribes requirements relating to the taking, handling, storage, transport and analysis of samples.

Part VI (regulations 17 to 24) provides for the investigation of every failure to satisfy a concentration, value or state prescribed by regulation 4 and for a report to be made to the Secretary of State. Where a failure relates to a Table B parameter, and certain other conditions are met, the Secretary of State may require the water undertaker to apply to him for an authorisation allowing a departure from the requirements of Part III, as regards that parameter. The circumstances in which such authorisations may be issued, and the conditions to which they are subject are contained in regulations 21 and 22, respectively. (Article 9 of the 1998 Directive permits derogations from the parametric values). Provision is made in regulation 23 for publicising authorisations. Regulation 24 provides for the modification and withdrawal of authorisations.

Part VII (regulations 25 to 33) deals with the treatment of water and regulates the substances, processes and products that may be used by water undertakers in connection with the supply of water. Regulation 26 imposes requirements relating to the disinfection of water and imposes additional requirements for the treatment of surface water. It prohibits the abstraction for the supply of drinking water of waters below category A3, as required by Council Directive 75/440/EEC (quality required of surface water intended for the abstraction of drinking water). Regulations 27 to 29 relate specifically to cryptosporidium. Regulation 27 provides for the carrying out of risk assessments. Regulations 28 and 29 re-enact, with amendments, the requirements of regulations 23A and 23B of the 1989 Regulations. Regulation 28(9) prohibits the supply of water from treatment works for regulation 4(1) purposes on and after 1st October 2001 unless a risk assessment has been carried out and either the Secretary of State has authorised the supply or remedial treatment has been required and is being carried out. Regulation 30 makes provision for securing the elimination or reduction to a minimum of the risk that water will be contaminated after supply by excessive concentrations of copper or lead. Regulation 31 specifies the circumstances in which water undertakers may apply or introduce substances or products into water supplied for drinking, washing or cooking. Regulation 32 enables the Secretary of State to require that his approval be obtained to the use of processes. Contravention of some of the requirements of regulations 28, 29, 31 and 32 is made a criminal offence by regulation 33, as is the making of false statements.

Part VIII deals with the provision of information by water undertakers. Regulation 34 requires water undertakers to prepare and maintain records containing information about the quality of water supplied in their water supply zones. Regulation 35 requires each water undertaker to make available for public inspection, and to supply local authorities with, information about the quality of water within its water supply zones, the extent to which Part IV of the Regulations has been complied with, details of any departures authorised under Part VI of the Regulations and of the action which has been taken to comply with enforcement orders under section 18 of the 1991 Act. It also requires each water undertaker to provide local authorities, health authorities and customer service committees with information relating to matters that could affect the health of persons residing in the authorities' areas. Regulation 36 requires water undertakers to publish an annual report containing information about the quality of water in the area for which it is responsible.

Part IX (regulations 37 and 38) imposes requirements on local authorities in the performance of their duties in relation to the quality of water supplied by water undertakers. Regulation 38 provides for the making of arrangements between the authorities and the water undertakers about the provision of information. It also enables local authorities to take such samples of water as they may reasonably require.

Part X (regulation 39) provides that contraventions by water undertakers of duties or requirements imposed by Parts V to VIII of the Regulations are to be enforceable under section 18 of the 1991 Act by the Secretary of State. This provision is additional to the criminal sanctions provided by regulation 33 in relation to contraventions of regulations 28 and 29, 31 and 32.

Part XI (regulations 40 to 43) amends the 1989 Regulations, makes transitional provision and revokes the 1989 Regulations and other related provisions subject to savings. The amendments to the 1989 Regulations, which take effect on 1st January 2001, are set out in Schedule 5 (regulation 40). Regulation 41 requires water undertakers to submit for the Secretary of State's approval programmes of work designed to secure that the standards of wholesomeness prescribed in Part III of the Regulations will, so far as reasonably practicable, be achieved when that Part comes into force on 25th December 2003. Programmes of work are to be prepared in accordance with Schedule 6 and are to be submitted to the Secretary of State before 1st April 2001. They may be approved by the Secretary of State with or without modification, and may be modified where the Secretary of State considers it necessary to do so for the purpose of securing that wholesomeness standards will be met on and after 25th December 2003. If a water undertaker fails to submit a programme of works, or if the submitted programme fails to meet the requirements of Schedule 6, or is otherwise unacceptable, the Secretary of State may prepare one. Programmes of work will be enforceable under section 18 of the 1991 Act by the Secretary of State.

Regulation 42 makes further transitional provision to enable water undertakers to apply in advance for the Secretary of State's authorisation in relation to matters which, on and after 25th December 2003, will need to be authorised under Part VI of the Regulations.

Regulation 43 revokes, in stages and in relation to English water undertakers and local authorities, the 1989 Regulations, various sets of amending regulations, and the amendments made by regulation 40. Regulation 22 of the Private Water Supplies Regulations 1991 and regulation 8(1) of the Surface Waters (Abstraction for Drinking Water) (Classification) Regulations 1996 are also revoked to the same extent, in consequence of the revocation of the 1989 Regulations. The revocation of the 1989 Regulations does not affect the obligations of water undertakers to keep records, provide information, make reports for the year ending on 31st December 2003.

A regulatory impact assessment in respect of the Regulations may be obtained from the Department of Environment, Transport and the Regions, Water Supply and Regulation Division, Zone 3/G20, Ashdown House, 123 Victoria Street, London SW1E 6DE. A copy has been placed in the library of each House of Parliament.

Copies of the ISO standards referred to in Table A1 in Schedule 4 may be obtained from BSI, 389 Chiswick High Road, London W4 4AL.

STATUTORY INSTRUMENTS

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